NORTH AMERICAN REVIEW.

No. CCCCLXX.

JANUARY, 1896.

THE FUTURE LIFE AND THE CONDITION OF MAN THEREIN.

BY THE RIGHT HONORABLE W. E. GLADSTONE.

I.—OF A FUTURE LIFE.

THE teaching of Bishop Butler with respect to a life beyond the grave divides itself under two heads. The first of these embraces the likelihoods which can be collected out of the "course of nature" with regard to the effect of death upon our existence. This is a physical or metaphysical, and in neither aspect a moral, discussion; it occupies the first chapter of the "Analogy." From its position on the threshold of the treatise, as well as from the nature of its topics, it has attracted much attention, and, it is fair to add, much criticism. There is, however, a larger strain of teaching, which pervades the work, but which for the most part is scattered piecemeal through it, as the opening up of the general argument into wider spaces gives occasion for its introduction. This relates not to the question whether we are barred by death from passing into another world, but to the prospects of man in that other world; and in one part of the treatise it gives rise to a discussion not metaphysical but moral: which is also one of

Copyright, 1895, by LLOYD BRYCE. All rights reserved.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

extreme interest. With these two widely separated branches of the subject it will be appropriate to deal separately.

And now as regards the first.

At the outset certain remarks are to be made.

In the first place, the chapter "On a Future Life" contains a discussion, not upon immortality, but upon survival. The inquiry is simply whether we can pass the bourn into the undiscovered land, and has no relation to our condition, or the duration of our existence, after we have arrived there.

In the second place, as the chapter is a plea not for immortality, properly so called, but for persistence of life as against the special occasion of death, so it is a plea not for the survival of the whole man, but only of the spiritual or immaterial part of man. The body of man takes no benefit for the argument of this chapter. Butler was well aware that, from the only sources open to him at the first inception of his work, he could offer no effectual argument on its behalf: and it was enough for his purpose if he could obtain an admission of some reappearance of the rational and responsible human soul in a future world.

In the third place, the condition of our author in this first chapter is that of a man who has to fight with one of his hands tied up. His general discussion is upon analogies. Analogies, considered as resemblances of ratios, require four terms to complete them. Butler has before him facts of nature, admitted to stand in a certain relation to an Author of nature. He has a third term in certain facts of moral government or of revealed religion, and from these three he has to infer the fourth. But in his argument on a future life, the third term, on which he has to build the fourth, is entirely wanting: for, being precluded from referring to any divine authority, he has no experimental facts to adduce with respect to the condition of the soul after death.

There are those who say these two things, survival and immortality, are but one: and seem to suppose that the case of surmounting death is like that of obtaining a passport which will carry us over the frontier of some foreign country; where, this once done, we have no other impediment to apprehend. But on this assumption of the identity of survival with immortality, it is to be observed that it is a pure assumption and nothing more. We have no title to postulate *in limine* that powers, which may be so adjusted or equipped as to face the contingency of death,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

must therefore be in all respects such as to be certain of facing with a like impunity every other contingency which, for aught we know, the dimness of the future may enfold in its ample bosom. Such questions may remain open and without prejudice for independent discussion.

There is a fourth observation to be borne in mind when we set about the consideration of Butler's chapter. It does not form a necessary part of his general argument. He might, without this chapter, put in array all the facts experimentally ascertained which prove the existence in this world of a government by rewards and punishments, and the righteous character of that government; and might, with this apparatus of moral considerations, now made ready for use, build upon them the usual and irresistible arguments for a future state. From the opening sentences of the chapter, he seems to enter upon it with reluctance, and only because he thinks it practicable and needful to clear the subject from certain metaphysical difficulties as to personal identity with which it has been darkened, and which, unless removed, might bar his access to the great moral argument he desires to introduce.

Addressing himself to his task under these circumstances, his argument is partly negative, and partly affirmative. The first goes to show the futility or insufficiency of the presumptions against survival which are drawn from the character of death. The second and more limited part goes to show substantive likelihoods, drawn from nature or experience, that the soul may survive death. In the first he is eminently successful. In the second we become sensible how scanty is the supply of material at his command. Much of the depreciation lavished on the chapter has arisen from the careless supposition that he is advancing as substantive arguments what in reality he only propounds as rebuttals of adverse presumptions.

Let us begin by taking note of his manner of supporting his first contention, namely, that death and the incidents of death afford no presumption that we are extinguished by it.

1. It is not proved by the immense change which death undoubtedly makes in us. For we know by experience that vast amounts of change in ourselves, and in inferior creatures, are compatible with continuity of identical existence. We have no absolute knowledge that the change effected by death is greater

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

than these changes; and until we do know it the presumption of our extinction by death does not arise. (True, none of these changes is marked by severance of essential parts: but we cannot say whether such severance constitutes a greater change than the change from the state of embryo to that of manhood, or from the egg, through the larva or caterpillar, to the moth or butterfly.)*

2. There is no ground, "from the reason of the thing," to suppose that death can destroy our "living powers"; that is to say, disable them from perception and action.† For of death in itself we know nothing, but only in certain effects of it. And as we know not on what our living powers depend for their exercise, they may depend on something wholly beyond the reach of death.‡ Death gives no evidence of destroying the living powers, but only the sensible proof of their exercise.§

3. Nor is any such ground furnished by the "analogy of nature." For in no case do we know what becomes of these living powers. They simply pass from our view.‖

4. The power of death to destroy living beings is conditioned by their being compounded, and therefore discerptible. For as consciousness is indivisible, so it should seem is the conscious being in which it resides.¶ And, if this be so, it follows that, the body being extraneous and foreign to the true self, no presumption can arise out of the dissolution of the body against the continued existence of the true self.

5. As we may lose limbs, organs of sense, large portions of the body, and yet the true self continues; and as animal bodies are always in a state of flux and succession of parts, with no corresponding loss or gain of the true self, we again infer the distinctness of that true self from the body, and its independence at the time of death.**

6. Even supposing the "living being" to be material, we know not its bulk, and unless it be bigger than one of the elementary particles which are indissoluble and represent the minimum, no presumption arises against its surviving death.††

7. Much less have we to fear extinction from anything happening from any system of matter other than our bodies, and not so near to us.‡‡

* Analogy I., i., 2., 3. † *Ibid.* 4. ‡ *Ibid.* 6. § *Ibid.* 7. ‖ *Ibid.* ¶ *Ibid.* 10, 11.
** *Ibid.* 12, 13, 15. †† *Ibid.* 14, 16. ‡‡ *Ibid.* 15, 20.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

8. Inasmuch as our senses do not perceive but are carriers only to the perceiving organ, as is proved by cases of losing them, and by dreams, we again infer the distinctness of the living powers.*

9. Again we so infer, because our limbs are only servants and instruments to the "living person" within :† and have a relation to us like in kind to that of a staff.

10. If this argument comprehend brutes, and imply that they may become rational and moral, it holds. But it need not. The objection rests wholly on our ignorance.‡

11. If even, as to his state of sensation, the true self of man indicate independence of the body, much more is he independent as to his state of reflection and its accompanying pains and pleasures : on which we see no effect from death.§

12. Certain mortal diseases, up to death, do not affect our intellectual powers. Is it likely that *in* death they will kill these powers ? or that, in death, anything else will do it ? ‖

13. We cannot infer from anything we know about death even the suspension of our reflective condition and action. Nay, it may be the continuation thereof, with enlargement ; ¶ all this in a course which may then be found strictly natural. **

14. The case of vegetables is irrelevant to a question on the survival of faculties of perception and action ; since they have none.††

In sum ; there is sufficient proof of independence to bar any presumption of simultaneous or allied destruction. All such presumptions have now been rebutted : and a "credibility," sufficient for the purposes of religion, indeed "a very considerable degree of probability," has been shown.‡‡

Having thus summed up the negative arguments of Butler, let us proceed to the positive, which indeed are few.

1. The fact of existence carries with it a presumption of its continuance ; which presumption holds until rebutted by adverse presumption or proof. §§

2. From the fact of swoons, if not also from dreams, we know that our living powers exist when there is no capacity of exercising them.‖‖

3. From the fact that in certain mortal diseases the reflective

* Analogy, I., i., 18. † *Ibid.* 19. ‡ *Ibid.* 21, 22. § *Ibid.* 24. ‖ *Ibid.* 25. ¶ *Ibid.* 26-8. ** *Ibid.* 31. †† *Ibid.* 29. ‡‡ *Ibid.* 32. §§ *Ibid.* 4, 8, 30. ‖‖ *Ibid*, 6.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

powers remain wholly unaffected, he seems to infer such an independence as supplies a positive presumption of future existence.*

I shall presently refer to Butler's treatment of natural immortality; at this moment it is enough to say what is indubitable; that he does not make use of it as an argument.

When we put the question, What is the force, in the aggregate, of the arguments which have been adduced in this chapter, and what was the author's own estimate of that force? it will not be found altogether easy to reply: and perhaps we have here felt the consequences of his having dealt with a subject extraneous to his main argument, in its not being handled with the same extraordinary exactitude and continuity. I will refer to two points in particular.

With respect to the argument of indiscerptibility, much favored by preceding writers from a very ancient date, it ought not to escape remark that Butler does not appear to place reliance upon it, as, in his summing up, he makes no allusion to it, but puts forward other topics in its stead. And yet it is an argument which, if it were sound, would dispense with every other and at once prove the whole of his case, so far as the soul, apart from the body, is concerned. But is it sound? To me it appears wholly valueless.

For what is discerptibility? Can it be defined otherwise than as the severance in space of portions of some whole which were previously united in space? so that parts of a material substance, which necessarily exists in space, are said to be discerptible. But the soul is not, according to the ordinary acceptance of the term, material. It does not then exist in space, and is not subject to its conditions. So that the idea of discerptibility is wholly foreign to it, and can have no concern in proving either its mortality or its immortality.

Yet Clarke has advanced a very high doctrine of indiscerptibility. "As evidently as the known properties of matter prove it to be certainly a discerpible (*sic*) substance, whatever other unknown properties it may be endued with; so evidently the known and confessed properties of immaterial beings prove them to be indiscerpible, whatever other unknown properties they may be endued with."†

* Analogy, I., i., 25. † Clarke's Defence of an argument used in his letter to Dodwell, page 101.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Again, Butler is evidently led to his conditional argument on behalf of the immortality of brutes by the palpable fact that they give evidence of living powers, a living agent, a true self, within and above their corporeal organs. It has been feared by some that this may lead to an inversion of the argument, and a contention that if our "living being" be like theirs, little can be inferred from it as to a likelihood of independent survival. The absolute finality of death for brutes ought not, I suppose, to be taken for granted. But we must carefully eschew the recognition of any full parallelism in the application of the argument from living powers as between the two orders respectively. And this on more grounds than one. The living being in brutes may suffice to warrant our presuming it to be possibly independent of death: but it is contracted in scope and insignificant in function when they are compared with man; who has not only perception and action, but reflection; and not only reflection but conscience; and with conscience a sense of moral right and wrong, together with an array of moral powers, as to which it is to be observed that, unlike the powers merely intellectual, they as a general rule lose nothing with the lapse of years, but ripen down to the hour of death.

And again, that great argument for human survival which arises from the palpable incompleteness of the work of discipline for which men came into the world, not universally, but still in a great multitude of cases, has little or no application to the case of brutes, whose life and death do not suggest in the same way the idea of unfulfilled purpose. Much of this, however, is not within the scope of Butler's first chapter.

In the beginning of section thirty-two, he states that he has shown the credibility of a future life: and truly may it be said that that against which no adverse presumption has been, or presumably can be, made good, is credible. But at the close of the section he says that he has proved it up "to a very considerable degree of probability"; which is a different matter.

He seems to have been perfectly successful in the business of pure rebuttal. The instrument by which he has achieved it is giving proof of our possession of living powers, and of their high character, apart from, and above, the corporeal organs: and, on the whole, it seems to be his view that the nature of these powers, together with the likelihood of their continuance (which, in the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

absence of any proved power of death to destroy us, he estimates highly) amounts to "a very considerable degree of probability."

Credibility, however, as he holds, is sufficient for all the purposes of religion, and this is reasonable; for in a matter which may profoundly concern us, such credibility binds us to move onwards, and to weigh all the elements of the case as the argument of the "Analogy," in the course of its development, may present them.

Thus the argument of continuance based upon existence is made to play a capital part. Is it strong enough to sustain the weight so laid upon it?

This question, as it seems to me, can hardly be answered without introducing other considerations. May it not be held that the likelihood of this or that entity's continuance cannot be measured until after first measuring the arguments for its present existence? We may presume (always proceeding upon the postulate that there is an Author of nature) upon the continuance of a rose bud in one way, but upon the continuance of a decaying rose only in a different and much more limited way. If things exist only for an end, the strength of the argument for their continuance will surely depend, in each case, upon their stage of advancement towards the attainment of that end. If they have upon them the mark of a design, together with marks that it is not yet fulfilled, the argument of likelihood for their continuance is strong. Such is the case with man. But then Butler's evolution of his subject has not reached a point at which he can make use of this argument. And it seems open to doubt whether simple continuance, apart from purpose, affords a solid standing-ground from which to project this or that existence into the future. Butler may be right in throwing the burden of proof upon those who refuse to admit as probable the continuance in the future of that which now exists; but this burden need not in every case be a very heavy burden.

The establishment of the apparent independence of the "living being" upon death is, however, of itself a great result; and its greatness grows upon us in proportion as that living being is richly equipped with faculty. Every attentive reader, in considering Butler's management of this subject, must remark how slightly, in presenting to us his "living agent," he puts forward the ethic and pathetic, or shall I say the moral and affectional, sides

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of our nature. Here we have an army of faculties, which greatly enhance the force of his reasonings from the nature of the living agent. And Dr. Eagle, a recent commentator on Butler, has well observed that our moral feelings and emotions are not subject to deterioration or abatement with the lapse of years, down to the latest, in the same manner and degree as are the powers of memory, perception, and reflection. Once only, in discussing this subject, does Butler name, in connection with reason and memory, "the affections which they excite."*

Let us now turn to the argument from natural immortality, which includes *a fortiori* the question of survival, and with regard to which we may be naturally led to inquire how it is that Butler, having said so much, has not said still more.

His references to natural immortality are found in the twenty-first and thirty-first sections of his first chapter. In the first of these he speaks of a natural immortality of brutes, and observes that it does not imply their being endowed with any capacities of a rational or moral description. In the second, he propounds to us that there may, in the future or unseen world, be a state of existence for us new and yet natural; and he conceives in general that this cannot reasonably be denied. He then proceeds to designate persons or circumstances such as in a particular manner exclude the denial: speaking thus—"especially whilst the probability of a future life, or the natural immortality of the soul, is admitted upon the evidence of reason."

With regard to the first of these passages, touching the immortality of brutes, Butler does not admit it to be a consequence of his teaching with respect to the living powers, or living being, as existing in man. With regard to the second, it is to be observed that when he has occasion to refer to immortality as it stands under the Christian dispensation, he says that "life and immortality are eminently brought to light by the gospel," and that "the great doctrine of a future state" is confirmed by the gospel.† The whole argument of the first chapter is an argument for the survival of the soul, in which no distinction is drawn between simple survival and immortality; so that it may have been meant to serve as an argument for immortality. And yet, in the passage which I have quoted from the first chapter (in section 31), his language as it stands is ambiguous. It may

* Anal. I., i., 26. † Analogy II., i., 9.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

mean the denial cannot take place compatibly with the dogma of natural immortality, and therefore not among such persons as happen to hold it. Or it may mean to take for granted a natural immortality, and to urge that, as this is an established principle, his proposition cannot possibly be contested. Which of the two is his meaning? I have arrived at the conclusion that it is the first. If this is so, he makes no assertion of natural immortality. I have arrived at the conclusion that he does not intend to make any positive assertion either for or against it, but to hold his judgment in reserve. He may have leant to it in his inner mind: he may have felt reluctant to oppose himself to an opinion which may be taken to have been universal in his time. But it is plain that he has stopped short of an absolute categorical assertion of it: and he could, as I conceive, have had no reason for stopping short of such an assertion, except an unwillingness to be committed to it, either from his general mistrust of propositions founded only on abstract reasoning, or from his believing this particular proposition to have been insufficiently established. Had he been prepared to propound it, he would surely have altered the whole argument of his first chapter; for, if the natural immortality of the soul be an established proof, it must at once take precedence of all those elaborate presumptions, which he has adopted for the basis of his reasoning in favor of a future life. He argues for a future life as hope, as credibility, as likelihood; but he does not venture to propound it as a thing of dogma or as a certainty. Had he felt himself in a condition so to propound it, his whole attitude in the first chapter would have been changed. That dogma would have been the head and front of the discussion; and all his rebuttals of adverse presumption, and his modest pleas for favorable inference, needed at most only to appear as an army of auxiliaries, preparing and making straight the way for the acceptance of that doctrine.

Now, if Butler has not bound himself hand and foot to the metaphysical principle of the soul's essential immortality, of an immortality for the soul inherent in its nature as soul, it was not because he lived in a world to which that doctrine was in any manner new or strange. On the contrary, it was, and it had been for many ages, a standing doctrine of popular, and, within limits it may even be said, also of authoritative, theology. Nor was recognized philosophy in disaccord with theology. I will

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

quote one instance which may serve to show how deeply the persuasion was rooted in the general sentiment at least of Western Christendom. At the Reformation, when so much of doctrine long unassailed was shaken down to its foundation, and Michael Servetus was prosecuted in Geneva, under the inspiration of Calvin, for heresy in respect to the Trinity, this question also was brought upon the carpet. Servetus was, or supposed himself to be, accused of denying the natural immortality of the soul. His reply was given thus:

"If ever I said that, and not only said it but published it, and infected the whole world, I would condemn myself to death."*

At a period when there was a disposition† in philosophy to exalt time and space almost to the dignity of the uncreated, it was little likely that the natural immortality of the soul, supported as to a wide extent it was by the authority of tradition, would be repellent to the general mind. It had indeed received in England, at the epoch of Butler's activity, new and weighty consecration. First, this had come from the Cambridge Platonists, who set the argument very high. Before proceeding to adduce proofs of the doctrine, John Smith writes as follows:

"The immortality of the soul doth not absolutely need any demonstration to clear it; but might be assumed rather as a principle or *postulatum*, seeing the notion of it is apt naturally to insinuate itself into the being of the most vulgar sort of men. . . .

"All nations have consented in this belief, which hath almost been as vulgarly received as the belief of a Deity." ‡

It has been more questioned by "unskilful philosophers" than by the unsophisticated mind of man; and has such a *consensus gentium* as Cicero rightly holds "enough to conclude a law and maxim of nature by." This stress John Smith lays on the consent of the general mind, though he thinks it includes an idea of the soul's materiality, and, it may be, its traduction too, as wide as the belief itself. And he takes as his common basis or principle this hypothesis, "*that no substantial and indivisible thing ever perisheth.*" For a moment only, as it seems, he declares himself indeed content with that idea of Plato which, in the Timæus, introduces the Deity addressing the angels (or νέοι θεοί) in these words, "You shall hold your immortality by a patent

* Guizot, *Great Christians of France*, Chap. xix.
† See the volume of correspondence between Clarke and Leibnitz.
‡ Smith's Select Discourses. IV., Chap., ii.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of mere grace from myself"; yet he remembers that Plato also falls back upon the dictum of Plotinus, "that no substance shall ever perish." Even mathematical considerations are pressed into the argument for the soul's immortality, which is enforced* with great persistence, and in a fashion not much according to the mind of Butler.

The doctrine of indivisibility, as precluding death and entailing immortality, was commended to Butler for acceptance by an authority nearer to him alike in time and in association than Smith, namely Dr. Samuel Clarke. The acceptance is, however, qualified, not absolute. The claim for immortality from indivisibility, he says, has been argued, "and for anything appearing to the contrary, justly." His own ultimate judgment on the question seems to be held in reserve. For this reserve, as for all the notable inflections of his thought, he must, without doubt, have had grave reasons. If Butler really held himself back from the full adoption of the popular and established opinion, such an abstention presents to us an instance both of circumspection, and of a mental courage founded on solid originality, which may be said to form a landmark in the history of opinion. It may warrant an attempt to map out the position of the question, as it would present itself to Butler's eye.

It may perhaps be well to begin by reminding the reader that the idea involved in the term immortality is not single, but manifold. I have already referred to two of the distinctions which we have to keep before the mind.

(1.) A vitality surmounting the particular crisis of death is one thing: an existence without end is another.

(2.) We may speak of an immortality of the disembodied spirit, and may combine it with or disjoin it from a survival or resurrection of the body. In the second case it is of the entire man; in the first it is of part only of the man, although of the chief part.

(3.) The new life to which death is to introduce the human being, may be active, intelligent, moral, spiritual, and may be placed in an environment accordant with all these. Or it may be divested of any one of these characteristics, or of them all.

(4.) The life of the unseen world may be conceived as projected into the future only, as it is presented to us by Divine

* In chapters III.-VII.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Revelation : or it may be projected also into the past, and viewed there in association with a past eternity.

(5.) It was when Butler saw personal identity, as he thought, in danger that he undertook to deal with the question of our existence in the unseen world.* This identity is in truth the very core of the whole subject. An immortality without identity is of no concern to us ; and the transmigration of souls is a virtual denial of the doctrine.

(6.) We have to distinguish between a condition of deathlessness into which we grow by degrees, and an immortality which, ingrained (so to speak) from birth, is already our absolute possession. This distinction is a vital one for those who do not accept any dogma of immortality belonging to nature, but who look upon it as a gift resulting from union with Christ and with God.

With these diversities before us as to the nature of immortality, let us now consider the various ideas of the tenure on which it is to be held.

W. E. GLADSTONE.

(*To be continued.*)

* Analogy, I., i., 1.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

HOW CONGRESS VOTES MONEY.—A REJOINDER.

BY THE HON. C. F. CRISP, EX-SPEAKER OF THE HOUSE OF REPRESENTATIVES.

In an essay headed "The House of Representatives and the House of Commons," published in the last number of the REVIEW, Sir Reginald Palgrave compares the procedure on money bills in Congress with that in the House of Commons; and reaches the conclusion that the American method is bad, and the English plan is good.

In order that a comparison between methods should be instructive and valuable, it is essential that each should be distinctly and correctly stated. While I am not familiar with the rules of procedure in the House of Commons, I have no doubt that Sir Reginald is, and that he has fairly stated what those rules are. I have some knowledge of the rules and practice in the House of Representatives, and am perfectly clear that Sir Reginald misapprehends both.

"Owing to the national jealousy," says Sir Reginald, "of anything approaching a one-man power, and the consequent absence of any single authority, the House of Representatives have sought to acquire the motive force necessary to urge on and to regulate their energies by a subdivision of authority; by the delegation of their power to fifty-six standing committees."

This extract from the essay of Sir Reginald discloses that he has an entirely erroneous conception of the duties and powers of the standing committees of the House. Let me make this plain. The duration of a Congress is two years. At the first session of each a Speaker is elected; and among other duties he is charged with the appointment of the standing committees of the House. These committees are composed of representatives of the different political parties, and each has jurisdiction defined by the rules.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The House of Representatives is composed of three hundred and fifty-six members, and has pending before it during each Congress more than ten thousand bills. Each member has the right to introduce a bill or bills, and this right belongs to him as a Representative. He can exercise, or fail to exercise, it as he sees fit, and that, too, without first obtaining the consent or approval of a Cabinet Minister, or any one else. When a bill is introduced it ought to have consideration. It may be public, or it may be private; it may be a good bill, or it may be a bad bill. In any event, it must or should be considered, or disposed of in some way.

Again, as all bills introduced cannot have consideration, there must be some method of calling to the attention of the House those most important. In the absence of committees, each member, as opportunity affords, might call up his bill and precipitate a discussion upon it in the House when no one, save himself, was at all familiar with its purpose and object, and when all were in ignorance that it would come up for discussion. In this way there could be no painstaking and careful consideration, and there would necessarily be much loss of time. The rules of the House, partly to obviate this difficulty, provide for standing committees. Each committee has defined jurisdiction.

Let me illustrate. There is a committee on elections, to which is referred all questions as to the right of a member to his seat; a committee on ways and means, to which is referred all questions affecting the revenue, or the bonded debt; a committee on appropriations, to which is referred all questions affecting the appropriation of the revenue; a committee on the judiciary, to which is referred all questions relating to judicial proceedings, or criminal and civil law. Now then, all memorials or petitions relating to the right of a member to his seat are referred to the committee on elections. That committee, in the room provided for it, can thoroughly examine into the matter referred. If necessary, it can hear evidence. It hears arguments. It carefully goes through voluminous testimony, and then reports to the House its conclusion. If it is not an unanimous agreement, then the minority reports its views; and when the case comes before the House for determination the reports disclose fully the important points in the law and in the evidence, and the House is thereby enabled intelligently to determine the question. The

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

same rule obtains as to appropriations, and as to every other question that comes before the House.

In no sense is there a delegation of the authority of the House to these committees; but, on the contrary, they are designed and intended to aid the House in arriving at fair and just conclusions.

In the House of Commons I understand select committees are appointed for the same purpose. In the House of Representatives, rather than appoint a select committee in each case as it arises, standing committees are appointed, to which are referred all bills that are introduced in the House. It does not create even a *prima facie* case. The reasoning of the committee may or may not convince the House of the correctness of its conclusions; the question may be as thoroughly investigated by the members when it reaches the House as though there had been no standing committee, and the conclusion finally arrived at may be the opposite of that reached by the committee. The great advantage of the system is that the committee in its own way and time, without formality, considers the question and reports to the House its conclusions, and the law and facts on which they are based. The House is then in possession of all the information necessary to a correct judgment.

Again, Sir Reginald says: "The contention I venture to raise is not against party, but against procedure. It is to show that while Congress, as I presume, exists to remove grievances, the biggest grievance that afflicts the United States lies in Congress itself, in the method used by both Houses for the appropriation of public money." And he further says, "the finance system of Congress" is "spending made easy," and cites increasing appropriations to prove it.

If Sir Reginald were better acquainted with our methods, he would see at once that this idea is incorrect. Perhaps the simplest way to demonstrate this is to relate in detail the procedure in the House of Representatives on a money bill.

Each head of a Department, that is, the Cabinet officer, at the beginning of every session makes detailed estimates of the sum that will be required to conduct the business of his Department for the ensuing fiscal year. These estimates are sent to the Speaker of the House, and are by him referred to that committee which has jurisdiction of the subject-matter. Take for illustra-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

tion the estimates for expenditure in the legislative, executive and judicial Departments of the Government. These estimates are referred to the Committee on Appropriations. That committee carefully considers them, sends for heads of Departments and makes inquiry as to the necessity of each or any item in the estimate; determines, after investigation, what is necessary for the support of those branches of the Government, and thus makes up a bill. The committee may report in favor of granting more or less than the estimates; but cases are rare indeed when the estimates are exceeded, and as a rule they are very greatly reduced. The bill thus prepared is presented in open House, either by the Chairman of the Committee, or the member of the Committee who has charge of it. The Speaker orders the bill printed and referred to the Committee of the Whole on the State of the Union, a committee, as its name implies, composed of the entire membership of the House. Each member is furnished with a printed copy of the bill. On a subsequent day, the Representative having the bill in charge moves that the House resolve itself into a Committee of the whole for the purpose of considering the bill. If this motion prevails, the Speaker vacates the chair, and names some member to act as Chairman of the Committee. The bill is considered in that committee under rules established by the House. One of these rules is that "no appropriation shall be reported for any expenditure not previously authorized by law, unless in continuation of appropriations for such public works and objects as are already in progress; nor shall any provision in the bill change existing law, except it operate to *retrench expenditures;*" nor can the bill be amended either in Committee of the Whole or in the House, so as to violate this rule. When the House resolves itself into a Committee of the Whole, the bill is read through, and general debate is then in order. "General debate" means that any member obtaining the floor may speak to the bill for one hour; and this kind of debate continues until every one of the three hundred and fifty-six members who desires to do so shall have spoken, unless the Committee shall rise, report to the House, and the House shall by a majority vote close or limit debate in the Committee.

When general debate is closed, the Committee of the Whole proceeds to consider the bill for amendment under what is known as the five-minute rule. Under that rule the bill is read by para-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

graphs, and at the conclusion of the reading of each, amendments are in order thereto, and debate is in order thereon. While the rule limits a member to five minutes, in fact, by offering a *pro forma* amendment he obtains ten. Every member of the Committee may speak; and debate thus continues until the Committee or the House, by a vote of a majority of those present, closes the debate upon the pending paragraph. Such debate is permitted upon each section or paragraph of the bill. After the whole bill has been thus considered, on motion, the Committee rises, and its Chairman reports the bill to the House, with or without amendments, as the case may be.

Unless the previous question is then demanded, and seconded by a majority of the House, debate on the bill is resumed and continued indefinitely. If the previous question is ordered, a vote is first had upon the amendments, if any, and then upon the engrossment and third reading of the bill. If this motion shall prevail, then the bill, upon the demand of any member, is again read through, and the question recurs on its passage.

Not only is this the proceeding on what is known as a general appropriation bill, but it applies equally to all bills which in any sense may be termed money bills.

Another standing rule of the House provides that "all proceedings touching appropriations of money, or bills making appropriations of money or property, or requiring such appropriations to be made, or authorizing payments out of the appropriations already made, or releasing any liability to the United States for money or property, shall be first considered in a Committee of the Whole." Whether a money bill be general or special, public or private, great or small, it must be considered under this rule, and in the manner I have just described; unless by unanimous consent of the members present a different procedure is adopted.

The debates in Congress, both in the House and in the Committee of the Whole, are reported verbatim, and published each morning in what is known as the "Congressional Record," and, on all important questions, substantially in the public press.

I submit to any candid reader that this history or statement of the method of proceeding on a money bill in the House of Representatives, discloses that Sir Reginald is in error: first, in supposing that such a bill is framed without conference with the head of Department; second, in supposing that it is con-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

sidered by the Committee in secret; third, in supposing that it is disposed of without full and free debate; and, fourth, in supposing that it is acted on without calling in what he correctly terms "that faithful servant of the community, publicity."

Neither is Sir Reginald well advised as to the practice when there is a question between the Senate and the House on money bills. "Time pressure" does sometimes "make itself felt," and the House or Senate may on occasions give a kind of forced consent; yet never is either House, against the will of its majority, obliged to accept the report of a conference committee without debate; and while it is true that a conference report is not generally printed, yet the rules require that it shall be read, and in the House shall be accompanied by a "detailed statement sufficiently explicit to inform the House what effect such amendments or propositions will have upon the measure to which they relate." So that the allegation that under any practice existing here Congress "blindly sanctions an expenditure the amount and destiny of which is known alone to the compromisers," is incorrect, and could have been made only by one entirely unfamiliar with our procedure.

Sir Reginald puts much stress upon what he terms the "self-denying ordinance of the Commons"; that is, they would receive no petition praying for public money, unless it was recommended to them by the Crown. After all, this is but a standing rule, made by a majority of the Commons, and by the same majority it may at any time be changed. Such a rule could not exist in the United States. Whatever money is here raised by taxation is the "people's money," and can, and should, only be expended by the people's representatives. The fact that the appropriations of any given Congress are large, or that appropriations from Congress to Congress are increasing, is in no wise traceable to method of procedure. In some departments of government there is a natural and necessary increase. In the Post-Office Department, by reason of extending better mail facilities, there is an annual increase. There is an increase in appropriation for our navy, because of the building of new and improved battleships. These and such like increases are necessary. Then the party in power may have a policy which involves an increase of expenditure. If appropriations are large in the American Congress it is because a majority of the representatives desire to make them so. Nor is there

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

under the rules and practice any method by which the House as a body, or the individual representative, may escape responsibility for its or his acts.

Through the *Record* and through the public press the people of each Congressional District are well informed as to the vote of their representative. Thus, in all cases, responsibility is fixed; and as the term of a representative is only two years, the people can speedily and effectually approve or disapprove of the votes of the sitting members.

Having been requested only to deal with the representations of Sir Reginald Palgrave as to the procedure in the House of Representatives on money bills, I shall not discuss the other matters referred to by him. Those who are familiar with our practice, and particularly those who have claims pending before Congress, will find it hard to believe that any one regards our system as "spending made easy." On the contrary, I aver that it is most difficult to secure the passage through the Congress of a bill appropriating money; and this is as it should be. The Representatives are but the trustees of the people, and fidelity to their trust requires that they should carefully scan every claim, and resolve doubts in favor of the Treasury.

CHARLES F. CRISP.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

FOREIGN MISSIONS IN THE LIGHT OF FACT.

BY REV. DR. JUDSON SMITH, FOREIGN SECRETARY, A. B. C. F. M.

FOREIGN Missions are among the leading themes of the hour. They are discussed in the pulpit, in the newspaper press, in pamphlet and magazine, and are almost the talk of the streets. And criticism, sharper here, milder there, finds expression quite as freely as eulogy or defence. The remarkable events of the war in the East and their results on missionary operations in China and Japan; the thrilling and tragic events in Turkey, which succeed each other in quick succession, and deeply disturb all missionary plans and powerfully agitate the civilized world; these also have drawn a peculiar attention to foreign missions. It is a good time for dispassionate study and statement. If this movement is intrinsically weak and unworthy of support, the sooner it is known, the more clearly it is seen, the better for all. If it is both reasonable and worthy of generous support, it is well that the grounds of such an opinion be clearly stated and put before the minds of all.

The criticisms we hear may be reduced to four classes. They assert that the aim of foreign missions to Christianize all nations is absurd and incapable of execution; or that foreign missions are in the hands of unfit and incapable men, who can never carry them through to success; or that the methods employed are so unreasonable, so ill-adapted to the end, that they provoke opposition and hatred rather than confidence and love; or that, at any rate, they have accomplished nothing, and can never win any real success. These criticisms are fatal if they are valid, fatal not alone to foreign missions, but to the whole Christian scheme. Nothing is more deeply imbedded in the gospel than its universality; nothing is more central in Christ's work and claims than that he is the Redeemer and Lord of all the nations and generations of the earth, and that "of his kingdom there shall be no

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

end." If Christ was mistaken upon these fundamental points, so that the effort to carry out his purposes and build his kingdom in all the earth is absurd and fruitless, his authority as teacher, and his power as Redeemer, are at an end. A presumption, almost overwhelming, is thus raised against these objections at the very outset, and before they are considered in detail.

In the first place, we must obtain the right perspective, and clear away misapprehensions that have no real ground. The foreign missionary movement of the times is often spoken of as if it were something entirely new in Christian history, an experiment of this century alone. But this is a great mistake. Foreign missions are as old as Christianity, and have been in progress from the day of Pentecost to this hour. The Divine Author of this faith fixed upon it this character of universality, and announced that it was to go to all nations and prevail to the end of time. This is no fresh discovery of our age; it was known to Peter and John as fully as to Carey and Judson; and the sense of this worldwide and enduring career has never left the Christian society in any land or in any age. The gospel was at first confined to Palestine, and to a few souls gathered in Jerusalem. But it did not stay there; and it was not meant to stay there. It possessed itself first of the Roman world all around it. Then it met and won the rising nations of Mediæval Europe, and filled the continent with its light. Thence it passed to the New World, to found here one of its strongest fortresses. And to-day Christian America and Christian Europe join hands in the deliberate purpose to preach the gospel and build the church in every continent and nation and island of the earth. There is nothing in history more real or more majestic than this march of Christianity from the place of its origin across the nations and down the centuries to a world-wide dominion. And this whole process is the constant, varied, and effective foreign missionary activity of the Christian society. We know it in the divisions of Church History as "The Spread of Christianity"; but this is only another name for the history of foreign missions. The gospel has thus entered into the vast and imposing civilization of Rome, the heir of the ancient world, and into the nascent and rude society of the Northern tribes; has colonized the Western continent; and still reaches forth to the conquest of the world. By means of this agency the Roman world became Christian; Pagan Europe became

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Christian; the wilds of America were peopled and possessed by men of Christian faith.

Here, then, is a long and glorious history, a solid array of unquestionable facts, always to be considered, when the meaning and effect of foreign missions are studied and judged. The expediency or the success of this movement is not to be judged merely by what has happened within the present generation or even within the present century, but by the recorded facts of eighteen hundred Christian centuries. The progress may appear to be slow in turning India and China to the Christian faith; but that is not the whole story. Foreign missions penetrated and filled and regenerated the Roman Empire, even though it required nearly three centuries to achieve the result; and no judgment of their success or fitness is valid that builds upon one of these facts and ignores the other. There was a time when it was as hard to find a Roman Christian as it ever has been to find a Chinese Christian; but that time quickly passed and passed forever, as it has already passed long since in China.

I am not now allowing that modern missions are a failure; I am simply calling attention to the fact that the judgment which pronounces them so is invalid and deals with only a part of the facts in question. Celsus, speaking for the Roman world of his day, alleged many of the things which the critics of to-day are repeating, and seemed to his times to have brought an unanswerable argument against the Christian Church. And Uhlhorn's remark is exactly in place: "Do the modern enemies of our faith know of no objections to bring forward except those which were advanced by our first antagonist seventeen hundred years ago? If so, then they are refuted before they write. For Celsus is refuted, I do not mean by Origen's answer, though that presses him very hard, but by the fact that the faith he scorned has triumphed." It is not claimed that foreign missions are faultlessly managed, or that every missionary is without defect, or that the methods have always been wise. "We have this treasure in earthen vessels," and human infirmity mars the record here and there. Even the work of the Apostles betrays the presence of human imperfection; the days of martyrdom are not without defect and excess; the missionary labors of Augustine and Boniface and Ansgar were by no means faultless. And yet the conversion of the Roman Empire was gloriously achieved;

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the Northern nations were illuminated and Christianized, and all Europe won. It is one thing to show that imperfections of various kinds attach to a movement, and quite another to prove the movement itself a mistake. And we may fearlessly assert the wisdom and strength and certain triumph of foreign missions, while we acknowledge that they are not managed with perfect wisdom and are not administered by infallible men.

Perhaps the most satisfactory contribution to current discussion will be rendered by setting forth in positive form the aim of foreign missions, the agencies and methods employed in their prosecution, and the success they have already won. The criticisms of this age, as of the age of Celsus, rest so largely, not on facts and observations, but on misconceptions and unwarranted inferences, that nothing can relieve their force more surely than such a statement of facts as is now proposed.

In the first place, then, foreign missions are the effort of the church of our times to carry on and complete that spread of Christianity and Christian institutions which was enjoined by our Lord, and which has been an integral part of all Christian history. This effort is a primary and sacred duty of Christian discipleship in every age and in every land. The precept of our Lord, "Go, teach all nations," is clear and unrepealed; there can be no limit to the field. The mission of Jesus Christ is as certainly to the modern world as to the world of his day, as directly to Hindus as to Romans, to Chinese and Japanese as to Americans. It is no more presumptuous for the missionaries of our times to attempt the Christianization of the Oriental nations and the African tribes than it was for the Apostles and their successors to attempt the conversion of the old Roman world. For Christ is the Lord and Saviour of India and China and Japan, or he is not Lord and Saviour to any man. If we deny that he has any special gift for the people of the Orient, we must deny that he has any gift for man at all, and ignore the supreme facts of the eighteen Christian centuries that lie behind us.

The missionaries of our day, as in all past Christian centuries, assume this universal scope of the faith they teach, and unhesitatingly offer its celestial grace as the supreme gift to every human soul. They value education and social refinements, literature and all the gifts of civilization, and feel profoundly the need of these in every land. But they also understand that the Christ-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ian faith is the forerunner and cherishing atmosphere of all these blessings; that without that faith these other gifts will be fruitless; and so they touch the deeper need, in order that life may blossom with all these other gifts. Education, literature, civilization, spring up in the track of this work, as they followed the labors of the missionary bishops and monks who won the nations of Europe to the Christian faith.

Missionaries do not aim to Americanize or Europeanize the peoples of the Orient, or to bring them under the political control of the great powers of the West, or to impose our type of civilization upon them. Neither do they interfere with the politics of the country where they labor. They do their work in loyalty to the existing government, as did Christ and the apostles. Turkey sorely needs to be reformed; China suffers everywhere for want of honest government; the political changes desirable in Africa are countless in number and variety. But Christian missionaries do not attempt these reformations. They have a deeper aim and address a more vital need; they seek to Christianize these peoples, to penetrate their hearts and lives with the truth and spirit of the gospel, to enthrone Jesus Christ in their souls, and to make righteousness and truth a plastic power in all forms of their life. This is the greatest blessing that can come to any nation and to any man. There is no human soul, and there is no people, to whom Christ does not bring an infinite blessing; there is no faith which Christianity is not worthy to replace, which it is not destined to replace. It is not to share the world *with* Islam, or *with* Buddhism, or *with* any other religious system. It is the one true religion for man as man, in the Orient and in the Occident, in the first century and in the twentieth century and as long as time shall last. We hear no other voice in all the tide of time saying: "Come unto Me, all ye that labor and are heavy laden, and I will give you rest." But for eighteen centuries countless souls of every name and clime have brought their burdens and their sins to Jesus Christ, and have found rest to their souls. And to-day the weary and hopeless in India and China, in Japan and Africa, are coming to His feet and finding rest and peace.

The men and women who direct this work abroad deserve the love and confidence which in so generous measure are bestowed upon them. They are human, with obvious limitations, and

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

subject to mistakes, as those have been who have been engaged in every great enterprise since the world began. The gospel has never been preached by perfect men ; not when it supplanted the elegant mythology and ancient paganism of Rome ; not when it smote the gods of the North, of Egypt, and of the East.

But when this is said, all that is needful in the way of concession has been said. Compared with other Christian teachers and leaders of their times, foreign missionaries as a class are in no respect deficient or in need of apology. For strength and clearness of mind, for balanced judgment, for practical sense, for industry and efficiency, for power in leadership and organization, for success in dealing with men, for magnanimity and courage, for patience and heroic self denial, they are the peers of the best men of their generation. Carey, with whom our modern movement began, was one of the most remarkable linguists of any age, and has put the learning of this century under lasting obligations. Judson, the Apostle to Burmah, was one of the foremost men of his times in all respects; and his achievements are a standing witness to his power. Livingstone, whose contributions to geography and science and the discovery of a continent are in the mouth of every one, did all his great service as a missionary. And what shall I say more of Morrison and Bridgman, of Dwight and Riggs, of Williams and Parker, of Jessup and Van Dyke, of Patteson and Bingham, of Hannington and Pinkerton, and the hosts of men and women, who, in many lands, in many tongues, and through the generations, have witnessed the gospel, subdued kingdoms, wrought righteousness, and entered into rest ? The men and women whom we send come out of our purest homes ; many of them are trained in our best colleges and universities ; they are not mere devotees or enthusiasts, but practical, sensible, capable of the best service that is rendered at home and abroad. Mission Boards do not send any one and every one who desires to go ; careful inquiry is made in regard to every applicant, and those only are approved who promise efficient service, probably not more than a fourth of the whole number that apply. And this care is indispensable. No weakling can deal effectively with this work of persuading the will and moving the heart and transforming the life of a people. He is useless everywhere, as much so in the heart of Africa or in the islands of the Pacific, as in Turkey, or India, or China, as much

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

so in all these regions as in the cultured circles of America or England.

The men and women who represent the principal missionary boards in foreign fields to-day are the peers of the men and women in Christian lands from among whom they were selected; for character and power they deserve and command the respect of all who know them and their work. They are fit to stand by the side of those men whose deeds and achievements in sub-Apostolic days, and in the great missionary epochs of the Middle Ages have made their names immortal. Carey and Judson, Morrison and Livingstone, take rank with Irenæus and St. Patrick, with Augustine and Boniface. And those now on the field are doing the deeds and wielding the power of the fathers and pioneers. Their great life work is not a mistake; their labors are not in vain. Their contributions to the knowledge of their times, in geography, ethnology, philology, comparative religions, which have commanded wide admiration and have laid the learned world under a lasting obligation, a brief abstract of which fills a volume, although they are incidental and secondary to their main work, yet indicate the industry, the breadth of mind and scholarly attainments of these men, and entitle them to the highest respect. But their greatest deeds lie in another sphere. They are the leaders and inspiring life of a movement that outrivals the march of Roman conquests, the mighty growth of English power, and is slowly changing the face of the nations and the course of human history. And they are worthy of the sublime place and work to which they have been called.

Missionary methods vary according to the land and people where this work is prosecuted, and according to the stage of advancement in the work. In a sense everything was new and tentative at the opening of the century; but with the expansion of the field and the accumulation of experience, there has gradually been formed a general system of missionary operations in which all societies in America and Europe are substantially agreed. The first duty of the missionary, on arrival in the field, is to acquaint himself with the people, their language, their customs, their inherited faith, and their institutions. With this goes a careful study of the missionary work in progress, the stage which it has reached, the end it is to win. The leading duty of the mission-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ary, after having established personal relations with the people and won their confidence, is to instruct them in the knowledge and faith of Jesus Christ. This is pre-eminently a work of teaching and persuasion, whether done in the public congregation, or in the home, or in personal conversation. No sane missionary ever thinks of imposing a creed, or of forcibly overpowering the will of the individual or the community; and any instance of such methods would be condemned by the voice and practice of the whole body of missionaries in the foreign field. That is done which Paul and the other Apostles did when they preached in Jerusalem and Antioch, in Asia and in Macedonia; the gospel is held up and explained in its distinctive and glorious facts, till the mind is illumined, till the heart is moved, and the will is swayed to penitence and faith and love.

As soon as a company of believers is gathered, the Christian church is formed, and the new society is led forward as rapidly as possible in Christian knowledge and character, in self-direction and self-support, and in active co-operation with the missionary force in spreading the message and building the church. In order to aid and reinforce this evangelistic effort and also to train those natives who are to be leaders of their people in church and school and in all Christian activities, schools are opened under the personal instruction of the missionaries and picked youths gathered in them for the most careful training. The mission schools of all grades, from the kindergarten to the college and theological seminary, which flourish to-day in India and China, in Africa and Japan, as well as in Turkey, and in which nearly 700,000 pupils are gathered, are among the most striking and hopeful parts of the whole missionary enterprise. Graduates of these schools are already in the pastorate in every mission field, and are associated with the missionaries as teachers in the higher schools and in important literary work. They include men of noble gifts and attainments, and form the nucleus of that body of native Christians upon whom in due time the entire Christian work in their several lands will devolve. The literary work of the missionaries is no less striking. Text books for the schools, newspapers for the churches, lesson helps for Sunday schools, the beginnings of a Christian literature, are included in this department of missionary labor. But its greatest service lies in giving the Scriptures to the nations. The Bible has been

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

translated fully or in part into at least 270 different languages or dialects by the missionaries of this century, and is circulated by millions of copies in Turkey, India, Burmah, China, Japan and Africa, so that the vast majority of earth's inhabitants can read in their own tongue the wonderful works of God. This is a majestic achievement, contributing more toward the enlightenment and civilization of the world than any other single human agency that can be named. What the Bible has done and is still doing for England and all English-speaking peoples, it is beginning to do for the hundreds of millions in the Oriental world. Commerce can point to no achievement that compares with this. Legislation and diplomacy never attempted and never dreamed of conferring such benefits on mankind.

In a word the method of missionary labor in our day proceeds in a simple, direct course through personal instruction and influence to the establishment of Christian churches and their associated agencies, under native leadership, in sufficient numbers and strength in due time to effect the Christianization of the life and thought and institutions of every land.

The success of foreign missions in our times abundantly attests the reasonableness of their aim, the efficiency of the missionary force, and the wisdom of their methods.

We must bear in mind that the era of modern missions scarcely spans a single century, and that a large part of the time and force devoted to them has necessarily been given to exploration, to the mastery of languages and other pioneer work, and to the gathering of the mission plant. This work, though it will ordinarily need to be done but once, is absolutely necessary at first, and constitutes a fundamental part of the whole enterprise. Much of it cannot be put into statistics, and it does not seem to signify when we are counting up results. The Christian conquest of the Roman Empire required nearly three centuries; the Christianization of Europe, after the Roman Empire of the West broke up, went on for more than five centuries. The problem of modern missions is far vaster than both those problems combined; and the success of the efforts thus far made can be justly measured only by bearing all these facts in mind. An impressive proof of the success already gained is found in the fact that within a single century from Carey's day missions have been planted in every great nation and island in all the unevan-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

gelized world, and that true converts have been won in every place where the work is begun. There are native Christians in many provinces of China to-day as true and faithful, as self-denying and devoted, as the men and women of Philippi, whom Paul addresses as "my brethren, dearly beloved and longed for, my joy and my crown." African Christians at Uganda have sealed their faith with their blood; Hindus, Burmese, Japanese, South Sea Islanders, Moslems, Buddhists, Confucianists, Idolaters—there is scarcely a land or people where the message of the missionary has not taken effect. It has already been demonstrated that the gospel *finds* these peoples as certainly as it found the Greeks and Romans, the English and the Saxons. And this fact is prophetic of the final and universal success of this movement. If 50,000 true converts to Christ have already been won in China, the whole multitude of China's millions *can* be won. The lever that has lifted 1,000,000 souls out of the darkness of paganism into Christian life and civilization is strong enough to lift the whole world into the light of God. We may justly change our Saviour's words of prophecy to the sober terms of history, and say: "They *are coming* from the east and from the west, from the north and from the south, and are sitting down in the kingdom of God."

The statistics of missions, though they can never express more than a part of the results that have been gained, still give ample evidence of an expanding and successful work. The number of Christian communicants in all heathen lands to-day exceeds one million souls, counting only the results of Protestant missions. This implies about four million adherents, men, women, and children already separated from the prevailing religious customs and habitually attending Christian worship and receiving Christian instruction. At the present rate of increase this number is doubling in less than ten years. It will require the continuation of the present course of things for only a few decades before the Christian communities will outnumber all others in these lands. But that is not all. No other faith is gaining in numbers like this; Buddhism, Confucianism, Mohammedanism are barely holding their own. The course of history and Providence favors this missionary enterprise, and makes against all other faiths with which it comes into contact; and the balance of power in many an unevangelized land is slowly shifting to the side of the gospel and its messengers.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Certain conspicuous examples of missionary success give clearness and point to this forecast. Seventy-five years since, the Sandwich Islands were the abode of pagans and barbarians, without a written language, places of dread or scorn to all the civilized world. To-day these islands have their recognized place among the Christian powers of the times, and are the abode of thrift and prosperity, with schools and churches, and the industries of a civilized land. And the transformation, little short of a miracle, is due to the labors and influence of the American missionaries, who, at the peril of their lives, went thither in 1819 and wrought with God for the regeneration of the kingdom. Defects are easily found in the present state of the islands, as they are in great Christian centers like London and New York; but the Christianization of those islands by missionary effort is as real and glorious a fact as the Christianization of Rome or England in the ancient days.

Fifty years ago the Fiji Islands were full of cannibals and pagans, places of war and dread. To-day cannibalism and paganism are gone, and the Christian churches are thronged with devout worshippers. It was not commerce or colonization or natural development that wrought the change; it was the Christian missionary and the power of his message and life.

Madagascar is a glorious witness to the power of Christian missions, and to the vital power of the Christian faith. The Christian victory in Burmah, the swift growth of the Christian host among the Telugus in India and among the Japanese—these all speak one word, and smite to silence every tongue that attributes failure to missions or that would deem their support a needless and a fruitless waste. It is most significant to note that 280 missionary societies, substantially representing Protestant Christendom, more than two-thirds of which have been formed within the last three decades, are now at work in the foreign field. More than 3,000 of the most promising young men and women in the colleges and seminaries of America alone are to-day personally pledged to this work. The educated youth of a land are not wont to espouse a weak or failing cause. More than $5,000,000 are yearly devoted to this cause by American Christians alone, and the amount increases year by year. Intelligent and clear-headed men and women, like these, including among them some of the ablest business men of the day, are not wont to waste their resources

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

on an idle and fruitless scheme. This sum is a trifle, indeed, compared with what is annually wasted in tobacco, or in intoxicants, or carelessly spent on the merest luxuries; and yet it is enough to prove that the good sense and sober reason of the leading Christian denominations of the country are convinced of the wisdom and success of the enterprise.

It would be interesting, also, if there were time, to mention the striking events which during this century have conspired to aid and quicken this work of foreign missions; to note how the pagan world has been opened, hermit nations drawn out of their seclusion, the Dark Continent unveiled; to observe how the English speaking people, to whom the principal part of this missionary work has been committed, are steadily gaining the supreme influence in the world, how the English language is coming to be the means of common intercourse around the globe, making accessible the wealth of its literature and history and institutions; to point out how foreign missions have served to develop and give practical power to the conception of the solidarity of the race, the universal validity of international law, the authority of the public opinion of Christendom. Though these are secondary and subordinate results, they are of the greatest consequence, and they compel the conclusion that Christianity is the religion of the ages and of mankind, as valid and as full of blessing to the Orient as to the Occident, to the modern as to the ancient world, so related to human nature itself that the attempt to spread it to every land and every age is the part of wisdom as it is the dictate of Christian love and loyalty.

JUDSON SMITH.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE PHILOSOPHY OF THE MEXICAN REVOLUTIONS.

BY M. ROMERO, MEXICAN MINISTER TO THE UNITED STATES.

It is always very difficult for the outside world to understand well and fully appreciate the real condition of things in a country, and more specially so when that country is in an abnormal state, that is, passing through a period of serious disturbances. This is still more difficult regarding Mexico, whose peculiar conditions make it so different from all other countries, that sometimes even educated Mexicans cannot properly understand the real situation of their country, unless they have made a special study of such matters. In this way I account for the general impression prevailing in the outside world, that because Mexico has been troubled by a long series of civil wars, which lasted for over half a century, we were constitutionally disposed to fight and did so without any plausible cause or reason; but such a view is a great mistake, and a few remarks will, I hope, explain the philosophy of our civil wars.

During the Spanish rule in Mexico, which lasted for three centuries, there were three controlling privileged classes, the people counting for nothing at all. The first was the clergy, who, by obtaining bequests from persons who were dying, and in several other ways, had accumulated a very large fortune, owning directly or through mortgages almost two-thirds of the whole real estate of the country, and so absorbed the principal money business. Their power depended not only upon thier immense wealth, but on their religious influence, and on their being the only educated class, for though they knew but little, it was a great deal more than the other classes did, as they were kept in the most profound ignorance. Their thorough discipline assisted the clergy very materially in wielding great influence. The clergy were so powerful during the Spanish rule, that a Viceroy tried once to enforce his authority on a recalcitrant Archbishop of the City of Mexico by ar-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

resting him and sending him to Spain. He succeeded in making the arrest; but the moment it was known that the Archbishop was on his way to Vera Cruz, the people rebelled in such serious manner that he was soon brought back to the City of Mexico, and the Viceroy had to leave the country.

The second privileged class were the Spaniards by birth, who formed a kind of aristocracy, some of them having titles, and being the only ones holding office of trust, responsibility or profit in the country, and who monopolized the principal commercial business, and were also a rich class. They were so jealous of the native Mexicans that even the children of a Spaniard by a Mexican mother, born in Mexico, were not considered on the same footing as the Spaniard; they were called creoles, had no rights at all, and could not fill any public office of any importance, nor have any position. But few Spanish women ever came to Mexico. The men generally came whilst they were young, grew up in the country, and married Mexican women, very seldom pure-blooded Indians, and generally the daughters of Spaniards by Mexican mothers, born in Mexico. Of these unions came the creole.

The third class was the army, which was comparatively small, but was a very important element in the country, and native Mexicans were usually in very subordinate positions, though in a few cases only admitted among the commissioned officers.

These three classes, were, of course, decidedly attached to the Spanish rule, because under it they prospered and had all the wealth and power they could possibly wish for, while any change might endanger their position and welfare. The higher clergy were, of course, heartily loyal to Spain, while a few members of the lower clergy, Mexicans by birth—the church being the only career open to the natives—who, having on the other hand some patriotic feelings, were the only ones who could appreciate the condition of things, longed for a change.

The opposition of the clergy to independence and the alarm with which they viewed that movement were so great that their leaders were excommunicated by all the bishops of the country the moment the insurrection broke out. The Inquisition commenced proceedings against them, and several members of the higher clergy took up arms against the independent cause. The Bishop of Oaxaca, forgetting the teachings of the founder of his religion, organized his clergy, when he heard that Morelos was

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

going to attack the city, into a regiment to fight against the insurgents; but the martial prelate had no occasion to come into conflict with the insurgents, as he fled from the city as the enemy approached it.

The Spaniards disregarded so much the interest of their colonies, that they would not allow the Mexicans to raise the same fruits they had at home, like grapes and olives, etc., and that is the reason why we do not produce yet as much wine and olives as we otherwise could. It was only after our independence was accomplished that we began to cultivate those fruits.

The example of the United States, and even that of Spain,—where the people rebelled against the government established by Napoleon in 1808, under his brother, Joseph Bonaparte, notwithstanding that it had the sanction of King Ferdinand VII. who had abdicated in favor of the French Emperor—could not but affect the Spanish colonies in America, and most of them proclaimed their independence in 1810.

Independence was proclaimed in Mexico on September 15, 1810, in Dolores, an Indian village in the State of Guanajuato, by Miguel Hidalgo y Costilla, the aged curate of the town, assisted by Allende Aldama and Abasalo, three inferior officers of the Mexican militia. His undertaking had all the leading classes of Mexico arrayed against it. He collected a very large number of Indians and peasants, and a few of the militia regiments followed his lead. To raise the public enthusiasm on his side, he had to put his cause under the protection of the Virgin of Guadalupe, who is supposed to have preternaturally appeared two hundred years before to a humble Indian, near the City of Mexico, and was highly reverenced in the country. His men were unorganized, without arms, ammunition or discipline, and although he captured some very important towns, made some headway, and under a good military leadership he might have accomplished a great deal more, availing himself of the popular enthusiasm for independence and of the surprise and discomfiture of the Spaniards, the organization and discipline of the Spanish army soon prevailed and he was defeated, captured, degraded by the higher clergy, and shot on July 31, 1811.

Hidalgo was succeeded by another priest, a full-blooded Indian, José Maria Morelos, who had in him the elements of a

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

great warrior, who organized a government, convened a congress which issued a constitution, defeated the Spaniards in several drawn battles and sustained for several months, against great odds, the famous siege in Cuautla, near the City of Mexico. Morelos fought the Spaniards with various successes from 1810 to 1815, when he was defeated, captured, degraded and shot.

The tendency of the Mexican revolution and its leaders will be shown by stating that Hidalgo issued on December 6, 1810, not quite three months after he had proclaimed independence from Spain, a decree abolishing slavery in Mexico, and that our first Congress, which met in Chilpancingo, in 1813, issued at Apatzingan on October 22, 1814, a constitution, and decreed at the same time the abolition of slavery. The abolition, of course, could only be enforced in the few places which were occupied by the insurgents; but when independence was achieved, one of the first acts of the first Mexican Congress, convened at the City of Mexico to adopt a constitution, was to issue a decree on July 13, 1824, which abolished slavery, and it was then actually abolished. In fact, every Mexican is born a strong anti-slavery man, so much so that we could not understand why this country should have accepted slavery and should have tried to sustain and extend it even at the cost of a tremendous civil war, which imperilled the very existence of the United States, and the great influence that they have to exert upon the destinies of mankind; especially when the very Declaration of American Independence contains the principle that all men are born free and equal, and slavery is a contradiction of that great principle. But, fortunately, slavery has been abolished here as it was in Mexico over seventy years ago, and the stain, which for some time tarnished the fair name of this country, has in that way been entirely obliterated.

When Morelos disappeared from the field, the war of independence was almost over. A few leaders remained, conspicuously among them Vicente Guerrero, Nicolas Bravo and others, patriotic and generous men, who kept up the war to the end, favored by the topographical conditions and the climate of the southern section of Mexico, which, being quite mountainous and sickly, did not allow the Spanish troops to make much headway. Early in 1817 General Mina, a Spanish patriot of broad-minded liberal views, brought to Mexico a small expedition, very much like the one brought here by General Lafayette to

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

fight for independence, was joined by many Mexicans, and had for some time a brilliant triumphal march; but he was soon defeated, captured, and shot, as the Spaniards did not give any quarter.

Such was the condition of things when, in 1820, the Spaniards at Madrid restored the liberal constitution adopted by the Cortes in 1812, when King Ferdinand VII. had fled from Spain and the country was in possession of the French, and that fact alarmed very much the conservative Spanish element in Mexico, who, fearing that liberal principles might find a foothold in the mother country, thought that it was better for them to proclaim independence from Spain and establish a Catholic monarchy under a Spanish king, so that they would not be subject to the obnoxious changes which liberal ideas, that had begun to permeate Spain, might bring about. They went, therefore, to Iturbide, who, although a native Mexican, had been one of the leaders of the Spanish army against the insurrection, was a good soldier and an ambitious man. Iturbide accepted their plan, and, when appointed by the Viceroy to command the army sent to subdue the southern revolutionary leaders, he took all the available forces and money of the Viceroy and joined Guerrero and the other revolutionary leaders, proclaiming on February 24, 1821, a platform called *Plan de Jquala*, which was a compromise between the revolution and its opponents, as it accomplished independence, but under a thoroughly Catholic monarchy with a Spanish prince on the throne, and forbidding the exercise of any other religion. All the other commanding officers of the Spanish army in other sections of the country accepted that platform, and, after that, independence was of course accomplished almost without a blow. An incoming Viceroy accepted the plan of Jquala and signed at Cordova on August 24 of that year, but the Spanish Government repudiated that treaty and Iturbide was then crowned Emperor of Mexico in May, 1822.

So the movement for independence, which, in the other Spanish colonies, came from the higher classes, in Mexico sprang up originally from the lower classes, with the higher classes opposing it, and so the first movement was an apparent failure, because it did not have the support of the higher classes. But as soon as it became for the interest of the higher classes themselves that Mexico should be independent of Spanish rule, their influence turned the scale, and independence was at once achieved.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

But the Mexican patriots, who had been fighting for ten years in favor of independence, material progress, and liberal principles, could not be satisfiedwith the success of their former enemies and the establishment of an empire. They thought that this was depriving the country and themselves of the fruits of their victory, and so they rebelled against Iturbide and inaugurated a revolution which finally overthrew the empire and made Iturbide fly from the country after a reign of about ten months. After that, was renewed the old hostility between the two parties—the Liberal party, which had been the promoter of independence and desired progress, and the Conservative or Church party, which intended to maintain the *status quo*, and was decidedly averse to any changes. It is not strange that the conflict between these two parties, representing such antagonistic ideas, should have lasted so long.

After Iturbide's downfall, the Liberals summoned a national congress, which issued, on January 31, 1824, the preliminary basis of a Federal Constitution, and on October 4, of the same year, the Constitution itself was finally adopted and promulgated. It was patterned after the Constitution of the United States and was almost a copy of it, and I do not know whether, in imitating so closely the institutions of this country, we did not make a mistake. The constitution of a nation should be adapted to the conditions of that country. Here, in the northern section of the continent, there were at the end of last century thirteen colonies independent from each other, which made war against England, achieved their independence, and then found themselves little more than a confederacy of infantile nations, with all the weaknesses which ever have attended a simple confederation. They, therefore, decided to consolidate themselves into a strong nation, under the name of "The United States of America." The federal system of government was the only solution of the problems which confronted then the people of this country. It was the natural and inevitable outgrowth of the condition of things existing before the adoption of the Constitution. In Mexico, there was a united country, subject to the same authorities and laws, and with only one head. In adopting a republican federal system there, the nation had to be artificially divided up into separate sections, to be called states, which had no separate existence before, and no individual history or experience in self-government. It is not to be wondered at, therefore,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

that when this constitution went into operation, it caused great disturbance. It is easy to find in this fact one of the causes of our prolonged civil wars. We were not alone in suffering such misfortunes, for almost every other nation on this continent following in our footsteps, tried to adapt the republican-federal system to a condition of things to which it was not suited. Brazil alone escaped this period of turmoil and experiment by establishing an empire, with a scion of the reigning house of Portugal on the throne, and by not adopting a federal-republican form of government until nearly a century later, after the people had acquired some ideas of self-government, and some capacity for carrying it out; and it is probably for these reasons that she has suffered less by civil commotions than any other country of similar origin in this hemisphere.

Our Constitution of 1824 was a decided victory for the Liberal party, but very far from being a final one. The Church party, though then defeated, was really the stronger of the two during the early years of independent Mexico. The Liberal victory did not last long, and the Conservative or Church party prevailed upon some of Mexico's numerous military leaders to rebel against the government and inaugurate a series of revolutions, which ended in 1835 in the overthrow of the Constitution of 1824. The military leaders began to play a very important part in public affairs. One of the worst effects of a successful revolution is that it sanctions the principle that brutal force shall prevail, and gives rise to personal ambition of unscrupulous and successful soldiers. One instance of this result is the case of General Santa Anna, of Mexico. He was an ambitious, unprincipled, selfish man, who sided with all the parties and deceived them all. He was a successful military leader in an irregular guerilla warfare, but had no ability as a soldier. He fought with the Spanish army against the independent cause up to 1821, when he went over to Iturbide when he joined the independent leaders; in 1822 he rebelled against Iturbide and proclaimed a Federal Republic, and in 1834 he abolished the Federal Constitution of 1824, and established a military dictatorship. From 1822 to 1855 he actually had the fate of Mexico in his hands, having been President five different times, but never did any good to the country, excepting his readiness to take part in our foreign war. He began his political career as a Radical Lib-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

eral, and ended it as the most reactionary leader of the Church party. He often was very easily discouraged and more than once fled from the country, forsaking a power which he might have wielded longer, showing that he lacked tenacity of purpose. But such an instance as this does not show, as a superficial observer might be disposed to believe, that the struggle was only on account of personal ambition of unscrupulous military leaders, as what really happened was that the political parties used these leaders for their convenience, and had, of course, to share the power with them.

When the Church party had the ascendency, they repealed the Federal Constitution of 1824, and on October 23, 1835, they issued some bases for a new constitution, which was finally proclaimed on December 29, 1836, under the title of Constitutional Laws, which abolished the federal system of government, and several of the liberal features of the Federal Constitution of 1824. The Constitutional Laws of 1836 did not seem to be conservative enough for the Church party, and they issued, on June 13, 1843, what was called the "Organic Bases"—a more conservative constitution.

As the Church party was so rich and so strong, and had so much influence in the country, it could very easily have brought about a civil war of such seriousness as would have been very difficult for the Liberal side to overcome; but, as time elapsed, the Liberal party, which really represented the patriotic element of the country, grew stronger with education and contact with foreign nations, and was materially assisted in its task by the demoralization of the clergy and their unpatriotic conduct during our foreign wars—as, besides our civil wars, we had, in 1828, a war against Spain, who sent an expedition to reconquer Mexico; in 1838, a war with France; in 1846 and 1847 a war with the United States, and from 1861 to 1867, the war of the French intervention. It was not difficult, therefore, for the Liberal party to inaugurate in their turn a counter-revolution, which was at last successful, and which finally restored them to power. It was in that way that the period of our civil wars continued for so long, and that we came to have so many different constitutions.

Finally, on May 18, 1847, the Federal Constitution of 1824 was restored, with some amendments, and the Liberal party

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

regained power, which they kept until 1853, when Santa Anna returned to Mexico, called back by a successful revolution of the Church party, and established a dictatorship of the most reactionary kind. But the Liberals rebelled against him in 1854, proclaiming the plan of Ayutla, and in 1855 Santa Anna fled from the country, because the Church in whose interest he was administering the government would not give him the money he required to carry out the war. A federal government was then established under General Alvarez first, and General Comonfort afterwards. General Alvarez appointed Benito Juarez Secretary of Justice, and on November 23, 1855, Juarez issued the first law against the clergy which deprived them of the civil privileges they were enjoying. Under the Spanish rule, and also after the independence of Mexico, up to that date, the clergy had special courts made up of clergymen, to try them for any offence that they might commit. This was a privilege which insured them almost perfect immunity and exempted them from the control of the laws of the country. The Liberals thought that that was a great outrage, but they could not change that condition of things until the Juarez law of 1855. The army enjoyed similar privileges, of which the Juarez law deprived them by restricting the jurisdiction of military courts to only military offences.

Juarez was a most remarkable man. He was a full-blooded Indian, born in a small town inhabited only by Indians, and where there was but one man—the parish priest—who spoke Spanish and could read and write. Juarez was so anxious to learn Spanish and to acquire an education, that he offered his services as a domestic to the priest, under condition that he should be taught. The priest found him so intelligent that he sent him to the adjoining city of Oaxaca to be educated. From such humble beginnings he rose to be a prominent lawyer and a foremost statesman. He was, at different times, Secretary of State of his own state, Member of the State Legislature, State Senator, Governor of his state for several terms, Representative to the Federal Congress, Secretary of Justice and of the Interior, Chief Justice, Vice-President, and finally President of the Republic. His principal characteristics were his profound conviction of liberal principles, his very clear mind, his remarkably good common sense, his great moral courage, his unimpeached integrity and

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

honesty, his great patriotism, his tenacity of purpose and devotion to civil government. In time of war, when the destinies of the country were in his hands and often depended on the result of a battle, and when many others in his place would have led an army, he purposely abstained from exercising any military duties. These he left entirely to those of his associates who had shown talent for war, and he himself set the example of a purely civil government. He had as much personal courage as any man in the world. I saw him more than once facing death as near and sure as any man ever did, with perfect calmness and almost indifference, but without bravado. I am sure he felt that it is best for a patriot to die in the service of his country, because in that case he wins for himself immortality, and on this theory I account for the fact that he was never afraid to die if he died while in the performance of a patriotic duty.*

The Juarez law was succeeded by the Lerdo law, which provided that no corporation—meaning the clergy, as the church was the only corporation existing in Mexico—could hold real estate, and that such as was held then by any corporation should be sold to the actual tenants at a price which was to be arrived at by capitalizing the rent on the basis of six per cent. rate of interest. Thereafter, the tenant was to be the owner of the property, the corporation retaining a mortgage equal to the price fixed in this way. These two laws were the cause of two other insurrections promoted by the church and subdued by President Comonfort.

Our present Federal Constitution of February 5th, 1857, had been issued during the administration of Comonfort, and he had just taken the oath to support it, and under it he had been elected Constitutional President for a term of four years, beginning on December 1, 1857, and on the 17th of that month he rebelled against the constitution he had just sworn to support.

* Mr. Seward's estimate of the character of Juarez, shows how the Anglo-Saxon was impressed by the little Indian. When Mr. Seward visited Mexico on his trip around the world, he was heartily welcomed by my country, and in a remarkable speech that he made in the City of Puebla, he said that Juarez was the greatest man that he had ever met in his life. His speech was taken down in shorthand, and Mr. Thomas H. Nelson, of Terre Haute, Ind , then United States Minister to Mexico, noticing this phrase and thinking that in the excitement of the moment Mr. Seward had gone further than he intended and further than he would like to have repeated after a sober second thought, took it to Mr. Seward and said to him, "Governor, will you be willing to stand by what you said in your speech, about Juarez being the greatest man you ever knew? Remember that you have been the peer and contemporary of Webster, Clay, Calhoun, and many other distinguished men of our country, and that you place Juarez above them all.' Mr. Seward answered, "What I said about Juarez was after mature consideration, and I am willing to stand by my opinion." This statement has been submitted to General Nelson and found correct by him.—M. R.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Notwithstanding this and the fact that he had successfully subdued two insurrections of the church against his government, he finally allowed himself to be used as the tool of the clergy, and headed a revolution against the very constitution which he had proclaimed, and to which he owed his position.

Juarez, after the enactment of the law which bore his name, had for a time been Governor of the state of Oaxaca, and while holding that office he had been elected Chief-Justice of the Republic and *ex-officio* Vice-President, and was at the time of the Comonfort rebellion also acting as Secretary of the Interior.

Juarez became Comonfort's successor and undertook to stem the tide of rebellion and reaction. In the City of Mexico most of the old regular army of the country were in favor of the Conservative or Church party. The city, therefore, fell into the hands of Juarez's enemies and he had to fly from it. He went to the interior, where he established his government, first at Queretaro, afterwards at Guanajuato and Guadalajara. Finally he sailed from Manzanillo, a Mexican port on the Pacific, to Panama, New Orleans, and back to Vera Cruz, on the Gulf of Mexico, where he remained for about two years. Vera Cruz was the stronghold of the Liberal party as it was naturally a strong place and well fortified. It was protected also by its bad climate and the prevalence of yellow fever there, and was the best place he could have selected to establish his government. He remained at Vera Cruz from March, 1858, to January, 1861, during which time the principal cities of the country were in the hands of the Church party. The Liberal army, though often defeated, was never destroyed, for the people were with them and recruits came in abundance. After a defeat, the liberal leaders reorganized their armies and were soon ready to meet the enemy again. Their courage and persistence were finally rewarded and they were victorious in the decisive battle of Calpulalpan on December 23, 1860.

During the terrible struggle which we call the War of Reform, Juarez issued, from Vera Cruz, on July 12 and 23, 1859, our Reform Laws, which had for their object to destroy the political power that the clergy had exercised before. The church property was declared national property, and was sold by the government to the occupants of it at a nominal price, payable partially in national bonds, then selling at a very low price, about five per cent. of their face value. The clergy were then deprived of

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

all political rights. Their convents, both of monks and nuns, were suppressed. The number of churches existing in the country was considerably reduced. Complete independence between the church and the state was proclaimed. A civil registry of births, marriages and deaths was established, taking from the clergy all interference with such subjects, which had been up to then under their sole supervision. Processions and all other religious demonstrations outside of the church, as well as the ringing of bells, were prohibited. The number of feast days, which then amounted to nearly one-fourth of all the days of the year, and tended to keep the people in idleness, was reduced to not more than two or three for the whole year. The wearing outside of the church of the priest's peculiar habit was prohibited, and many other stringent measures against the clergy were adopted, with a view to destroy their political power and to deprive it of the means to bring about another insurrection against the government.

It is a remarkable fact that most of the Liberal leaders were lawyers, who, influenced solely by patriotism and a desire for the success of the Liberal cause and without any military education, had to lead our armies during the long civil wars. Some of them became very distinguished soldiers in our war, as happened here in the United States. So I can properly say that the final success of the Liberal cause in Mexico was due in a great measure to the jurists of the nation, and it was so much so that they incurred the special hatred of the Church party, and the name of "lawyer" was wont to be used by them as a contemptuous designation for the Liberal leaders.

After the battle of Calpulalpan, where General Miramon, the last Church party President, was defeated, Juarez left Vera Cruz and established his government at the City of Mexico. He then convened Congress, ordered an election, and in 1861 he was elected President for his first constitutional term. The Reform laws did not become operative until after Juarez occupied the City of Mexico and his rule was extended over the whole country.

The Church party did not give up the struggle, but began again with renewed vigor to start a new insurrection in 1861, directed especially against the execution of the Reform laws. Although this insurrection was not of a serious character, because the insurgents could not capture any important places or defeat

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the government troops, it did succeed in keeping up an unsettled condition of things throughout the country, involving great insecurity to life and property.

When the Church party became satisfied that the Liberal party had grown so much that they did not have strength enough at home to overcome it, they went to Europe and continued their intrigues with European courts to secure a European intervention in Mexico. Unfortunately, about that time, the Civil War broke out in the United States, and insured the success of the Mexican Church leaders in obtaining the European intervention, as the French Emperor seemed quite certain of the success of the Confederacy, and was very well disposed to avail himself of the opportunity offered by the Mexican Church party of gaining a foothold in Mexico and effectually aiding in the permanent division of the United States. He had, besides, his dream of establishing a French Empire in America bordering on the Pacific. Under his influence an alliance was made between France, England, and Spain, and Maximilian was persuaded to come to Mexico. England and Spain withdrew before the war actually began, and Napoleon's first army was defeated at Puebla on May 5, 1862; but, after being considerably reinforced, he succeeded in occupying both Puebla and the City of Mexico in 1863, and so began the French intervention. The details of that intervention are quite familiar in this country, and I will not say anything more about it.

When peace was restored in the United States after the collapse of the Confederacy, Louis Napoleon, of course, understood that he could not continue for an indefinite period his occupation of Mexico, and that he had to give up his Mexican plans, and withdraw his army from the country. Maximilian well knew that he could not remain in Mexico after the withdrawal of the French, and he decided to leave the country as soon as he heard that the French army was to be withdrawn and he was satisfied that his wife's mission to Europe to obtain a revocation of the order of withdrawal was fruitless; but unfortunately he was a dreamer without force of character and he was not a man equal to the occasion. He was not steady in his resolutions, and he was persuaded by the leaders of the Church party to return to the City of Mexico after he had already started on his homeward journey and gone in October, 1866, so far as Orizaba, two-thirds of the way

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

between the City of Mexico and Vera Cruz, where the "Novara," the same Austrian man-of-war which had brought him to Mexico in 1864, lay ready to take him back to his native country, having been sent over at his request by the Emperor of Austria, after having generously reinstated him in his rights as Archduke of Austria and eventual heir to the throne, which he had resigned when leaving for Mexico. Early in February, 1867, Maximilian left the City of Mexico and went to Queretaro, where he was finally captured, tried and shot on June 19 following.

In July of that year the Juarez government was again restored to the City of Mexico, and another popular election took place, in which Juarez was almost unanimously elected by the people for another term from 1867 to 1871.

The patriotism and firmness of Juarez were remarkable. There was a time, during the French intervention, in which many seemed to despair of the fate of Mexico, and that feeling was not entirely unreasonable, considering that the country was invaded by a very large French army—some sixty or eighty thousand men, I think. Besides, Napoleon and Maximilian had contrived to have an Austrian auxiliary corps, a corps from Hungary, and another from Belgium—Princess Charlotte, Maximilian's wife, was a daughter of the former King of Belgium and a sister of the present King—and he had also one contingent from the French colony of Algiers, and the command of the troops of the Church party, which were on his side, and embraced most of our old regular army, and finally, he had all the aristocratic elements of Mexico in his favor. Altogether, the array was so great that it was no wonder that many of our public men had, sometimes, little hope of success. But Juarez never despaired for a second. He was perfectly certain of final success, and was ready to sacrifice his life for his country's cause.

In a country where civil war had lasted for such a long time, everything was demoralized, and so, even after our complete success against the French intervention, and the so-called empire of Maximilian, some uprisings took place, which were now headed by dissatisfied Liberal leaders, and although they were of no serious nature and were easily subdued by President Juarez, they kept the country in an unsettled condition, and contributed to support the view that we were unable to maintain peace. President Juarez died on July 18, 1872, and President Lerdo de Tejada, who

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

succeeded him, first as Vice-President and afterwards as constitutional President elected by the people, held the office until November, 1876, when General Diaz became President. Among the many distinguished services that General Diaz has rendered to Mexico, perhaps the principal one is to have restored complete peace to the country. During the several terms in which he has filled the executive office, he has earnestly encouraged the material development of the country, and firmly established peace and order. Material development always furnishes the best security that public peace will be maintained. It would take more space than I can conveniently occupy if I intended to give a correct idea of the great services that General Diaz has done to Mexico.

It will be readily seen by this very brief synopsis that the causes which brought about the civil wars in Mexico are now over. Ours was a contest for supremacy between the vital forces of the nation, between the old and the new ideas, which in other countries it has taken longer years, and even centuries, to settle; but now our political problem is solved, the Church party is completely broken down as a political organization and cannot cause again any serious disturbance, and the elements of civil war are now lacking. Mexico, for nearly twenty years, has been at peace and enjoying all the advantages of a permanent peace. Such persons as took part in former revolutions have either died, disappeared, or are now interested in the maintenance of peace, because they are thriving under the development of the country. Even in case President Diaz's guidance should fail Mexico, I am sure that peace would be preserved, because the interests in its favor are very strong. Railways and telegraphs are great preservers of peace. In case of an insurrection, it was not long ago that it took months before the government could reach the insurgents, and in the meantime they could organize and fortify themselves and make considerable headway before they were confronted by an enemy. Now the government can send troops at once to quell it.

Peace in Mexico is as secure as it is in any other country, and life and property are as safe there as anywhere else. Public opinion seems to share this view, and capital, especially foreign capital, which is so conservative and timid, is now being freely invested in Mexican enterprises.

M. ROMERO.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

SPEED IN AMERICAN WAR-SHIPS.

BY WM. S. ALDRICH, PROFESSOR OF MECHANICAL ENGINEERING, UNIVERSITY OF WEST VIRGINIA.

THE late remarkable performance of the American built cruisers, "Columbia" and "Minneapolis," is clearly not to be attributed to any novel features of form or unprecedented fineness of line, nor new ratios of length to breadth nor to any phenomenally low skin-friction and wave-making resistance. In these fields the naval architect has undoubtedly done his best to bring about the unexpected results. Yet any one or all of these elements of refined design are not alone sufficient to account for the increased speeds of our new war vessels.

It would appear that we must look to the motive power machinery for no small share in the record-breaking runs made on their trial trips. It will also be necessary to weigh carefully the merits of triple screws for war vessels as compared with twin screws. It must be borne in mind that comparisons are here made between United States naval cruisers alone; more particularly so in the case of the "New York" and the "Minneapolis." Their lines were laid down by the same skilful designers for the utmost possible speed, under the most economical conditions of working, and as adapted to the method of propulsion imposed. They were built by the same firm. Instruments were used for indicating the horse-power of the engines which had been standardized by the same expert naval engineer.

We shall take a look backward, however, and note the remarkable runs of some earlier American-built cruisers. The development of the so-called "New Navy" along the line of cruisers will also be pointed out. This will assist the reader to form an opinion as to the most desirable course for the present and future naval programmes of shipbuilding. Especially important also,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

as bearing directly on this issue, is the new naval policy of establishing a naval reserve in such American built cruisers as the "St. Louis" and the "St. Paul," and the admission to American registry of the "New York" and the "Paris."

The inherent desire of the American people for the maintenence of our peace establishment no doubt had much to do with the significant fact that the first war vessels authorized by Congress, in 1883, for the rehabilitation of our navy, consisted of three protected cruisers and a dispatch boat. The 3,200-ton sister ships, "Atlanta" and "Boston," were rated at 15.6 knots on 4,030 horse-power. To get the machinery below the then newly-planned protective decks the engines were built of the horizontal compound type. The other, "Chicago," was to develop 15.3 knots, on 5,084 horse-power, and was the first in which twin screws were adopted, but with an antiquated type of compound overhead beam engine.

In examining the work projected by the Naval Advisory Board of scarcely a decade since, we must not lose sight of the fact that compound engines were then the order of the day. No marine boilers had yet been built to carry the, at least, 50 pounds higher pressure demanded by triple expansion working. Such were not adopted in the transatlantic liners till 1885, in the "Aller." Naval designers usually wait for merchantmen to lead the way and bear the expense of the experiment, if it proves to be such.

The above first three American cruisers were built in the once famous Roach shipyards. The latest cruiser, the "Minneapolis," had her trial trip, three years and four months after the passage of the act authorizing her construction. Her builders, the Cramps, have earned an international reputation by their workmanship and skill. These advances have been made possible, also, by the characteristic American method of meeting the new demands for structural steel and armor plates by the development and successful establishment of entirely new industries during the past ten years. These new industries now compete against the armor plate makers of the world, for material delivered anywhere against the odds of transportation charges, and secure contracts for foreign as well as home naval vessels.

Unarmored cruisers of the protective deck type were still believed to be most needed, for the present war cry for battleships

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

had not yet gathered sufficient strength to influence Congress. So that, in 1885, two more protected cruisers, the "Newark" and "Charleston," were authorized. The speed requirements were greatly increased for these 4,000-ton cruisers: the "Newark" developing 19.0 knots on 8,869 total horse-power, and the "Charleston," 18.2 knots on 6,666 horse-power. The latter vessel was the last to be built of the old twin-screw horizontal compound type; while the "Newark" led the way in the introduction of triple expansion engines, but still of the horizontal type for her twin screws. The "Newark" was the first cruiser of the new navy built by the Cramps, and both were accepted on fulfillment of the new four-hour contract-trial at sea.

The first sea-going twin-screw battleship was ordered in 1886, the "Texas," of 6,300 tons displacement, and to develop 17.0 knots with 8,000 horse-power. In this vessel the vertical type of triple expansion engine was adopted for the first time in the United States navy. But there was another protected cruiser authorized, the same year, the 4,600-ton twin-screw "Baltimore," with engines similar to the "Newark," but advancing still in speed attainments to 19.84 knots, with 10,064 total horse-power.

Of the old type of protected cruisers, with twin screws and horizontal triple expansion engines, there were only two more authorized, in 1887, the "Philadelphia" and "San Francisco." The former, with displacement of 4,324 tons, developed 19.68 knots on 8,815 horse-power; and the latter, on the four-hour trial off Santa Barbara, attained speed of 20.17 knots for the last half hour, with mean for the trial of 20.6 knots on 9,913 horse-power and displacement of 4,088 tons.

In the same year, 1887, the first steel-armored twin-screw cruiser "Maine" was authorized to be built in the New York Navy Yard. She was the first cruiser to have vertical triple expansion engines of the type of the battleship "Texas." On her trial trip she developed 17.45 knots on 9,282 horse-power and displacement of 5,500 tons.

Government seemed well satisfied with its naval programme up to date, for in 1888 it authorized six more protected cruisers and one more armored cruiser, the "New York." All were to be fitted out with the newly adopted type of twin screw vertical triple expansion engines. Of the three 2,000 ton, 5,000 horse-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

power cruisers—"Detroit," "Montgomery" and "Marblehead"—the first led the way in developing speed of 18.7 knots, on 5,227 total horse-power. The two 3,200-ton cruisers, "Raleigh" and "Cincinnati," were built at Government Navy Yards, and rated at 19.0 knots on 10,000 horse-power.

The "Olympia," the remaining protected cruiser, of the 1888 programme, again broke the record on her trial trip by developing speed of 21.686 knots for four consecutive hours, on 17,363 total horse-power, and displacement of 5,586 tons. She thus became the fastest twin-screw protected cruiser of the new navy. Combined with her fighting qualities, coal endurance and manœuvering features, her speed and steaming capacity make her one of the most valuable acquisitions.

It is in the "New York," however, that we possess the fastest steel-armored cruiser. She was the first of the new cruisers to be tried at sea, off the coast of New England, between Cape Ann and Cape Porpoise, under the new standard contract-trial conditions. She developed speed of 21 knots on 17,401 total horse-power and displacement of 8,480 tons.

The plans for battleships had apparently been laid on the shelf, through some oversight not yet explained, and cruisers were masters of the situation. But, on a June day, in 1890, Uncle Sam looked around for some fighting vessels and authorized three 10,200-ton, coast-line battleships, the "Indiana," "Massachusetts," and "Oregon," to develop 15 knots on 9,000 horse-power.

At least one more protected cruiser was finally authorized by Congress, just six months before the three battleships above noted. This 7,350-ton cruiser was to be a commerce destroyer. From its inception there were grave apprehensions that the United States navy was going to pay dearly for the experiment of trying to use triple screws with triple expansion engines. But the conditions had been imposed. She was to attain at least twenty-one knots on 21,000 horse-power; more if she could. The Cramps were to build her and run all the risks of the untried triple screws. They were to receive $2,725,000 for the vessel, with a heavy forfeit of $50,000 for every quarter of a knot the speed fell short of twenty-one knots. Continuous adverse criticism was made against the management of the Bureau of Steam Engineering. But it was unavailing; for in a little over a year,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

before it could possibly be known how the first triple screw cruiser would turn out, her sister ship was authorized by Congress. We shall speak of the performance of these two—the "Columbia" and "Minneapolis"—somewhat in detail, later.

The following year, 1892, another armored cruiser, the 9,200-ton "Brooklyn," was authorized, to belong to the 20-knot class with the "New York." Congress judiciously offset this with a fighting vessel, however, the 11,300-ton, 16-knot, sea-going battleship, "Iowa." She is to have two sister ships in the new battleships, Nos. 5 and 6, authorized in 1895.

The rise, progress and decline of American-built cruisers have been briefly traced, from the 3,200-ton "Atlanta," with 15.6 knots on 4,030 horse-power, with its antiquated single-screw horizontal compound engines, and costing $617,000, to the 7,350-ton cruiser "Minneapolis," developing mean speed of 23.073 knots on her standard contract-trial trip, for four consecutive hours, with triple screws, each operated by vertical triple expansion engines, developing 20,862 total horse-power, and costing $2,690,000.

All of these American-built cruisers have been said to have served their most useful purpose before they were launched. It is thought that their value has been chiefly of an educational nature, in drawing out the talent of our young science of naval architecture and marine engineering, at the expense of government. It is undoubtedly true that they have stimulated somewhat the development of new industries, brought about, by the virtue of necessity, improved methods of iron and steel working, and contributed no small amount towards building up American shipbuilding and marine engineering industries. We have now the very latest thing, no doubt, also—triple expansion engines operating triple screws, and cruising speeds of war vessels with an unprecedented economy, in which we lead the world.

We should now rest on our oars awhile, at least. For, is it not only too true that our fighting policy has been sadly neglected? While it is paying policy for the merchant marine to have the very latest thing, it is believed not to be so in the navy, but the very contrary. Naval tacticians demand uniformity in models of war vessels, uniformity of speed, interchangeable parts of all vessels of a fleet, standardized fittings throughout; for is not "the speed of a squadron that of its slowest ship," and the strength of a fleet that of its weakest vessel?

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Our naval programme from this time forward should contain $4,000,000 battleships and plenty of them. For if we wish any more fast flyers we had better count on private enterprise. This, under the shadow of government subsidy, has given to our naval reserve such magnificent transatlantic liners as the "New York" and "Paris," the "St. Louis" and "St. Paul." Why not encourage this? But should this alone be done and the other left undone?

The naval programme of 1883, which gave us the three so-called Roach cruisers, "Atlanta," "Boston" and "Chicago," could not possibly have anticipated the development, during the next decade, which has culminated in the "Minneapolis." But, what and if the several arguments we have just noted had been applied then and there? The sixteen subsequent cruisers would have been built, if at all, with single or twin screw horizontal compound engines, trudging along together at 15-knot speed, at the most. It would have been of no avail to have prophesied that, in 1885, triple expansion marine engines would come to stay, with an acknowledged saving of 20 per cent. in coal bill over the old compound engines.

It would not have done to advocate triple screws, because the converging screw shafts, required by the fineness of lines for high speeds, would be argued to destroy the turning advantages of twin screws in time of battle. The accompanying economy of triple screw propulsion would not have been believed, if prophesied. The subdivision of so large a power into three triple expansion engine units would be seen to give increased facility in handling. The reluctant admission might be made that there really would be an increased chance of getting into port in case of breakdown with three engines rather than two. But, the phenomenal inefficiency of triple expansion engines when working at light loads, if it could have been proven, would have shown the economy of the greatly increased range of speeds for triple-screw war vessels when cruising in times of peace. With one, two or three screws in operation, the triple engine of each one may be worked at its most economical load, resulting in most economical rate of coal consumption, and therefore highest efficiency.

Whether we are witnessing the passing of American-built cruisers, or are going to see the "broom" remain at the mast-head of a war vessel carrying the stars and stripes, in either case

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

it will be profitable to examine into the conditions under which they have attained their maximum speed, and questions relating to their economical performance. Regarding the use of triple screws there have been acrimonious discussions between line and staff, not at all creditable to the *personnel* of our navy. But the Yankee does not always count on the happening of the unexpected. Sometimes he projects great and expensive works on small precedent, of which the adoption of triple screws is a modern instance.

The French Government experiments in 1884–5, on the specially-fitted triple-screw steam launch "Carpe," were sufficiently conclusive as to warrant its fitting out with triple screws, in 1890, the 6,300-ton armored cruiser "Dupuy de Lôme." Her performance up to the time of an accident to the boilers was very satisfactory. The Italian Government, in 1887, built the first two, the "Confienza" and "Tripoli," of seven authorized 800-ton triple-screw torpedo cruisers. The German Government was building the 5,000-ton triple-screw protected cruiser "Kaiserin Augusta." On September 29, 1892, she attained a speed of 20.86 knots, and was the first war vessel fitted with triple screws to be tried before the "Columbia."

The unexpected began to happen in the "Kaiserin Augusta." All three screws had the same diameter, but the pitch of the centre screw was made one foot less than the side screws, because it was expected that this centre screw, being in the wake of the vessel, would revolve more rapidly. The trial showed that the centre screw revolved slower than the side screws by about five revolutions per minute. This was taken advantage of in the trial of the "Columbia" by giving all three screws the same pitch, but the centre screw ran some five revolutions per minute slower than the side screws. This performance of our new triple-screw cruisers has upset some preconceived notions.

The so-called frictional wake of twin-screw vessels appears to exert a great forward pressure, contrary to the usual belief that the water between the side screws has a decided tendency to move sternward. Into this strong forward moving current of the frictional wake the centre one of the triple screws works to great advantage. This was especially noticeable in the trial of the "Minneapolis," in which, with only one more revolution, the center screw required of its engine 700 additional horse-power.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Moreover, this action appears not to interfere in any way with the stream line motion sufficiently to increase the vessel's resistance.

It was not anticipated that there would be found any increased economy of propulsion due to using triple screws. On the contrary, an expected decrease of economy was met by characteristic engineering foresight. They were designed to develop more horse-power than it was thought would be actually required to provide for attaining the contract speed if ordinary twin screws had been adopted. The performance of the "Minneapolis" has been reduced, with that of the twin-screw cruisers "New York" and "Olympia," from the observed speeds and displacements to the horse-power required for a 22-knot speed at a reduced common displacement of 5,586 tons (that of the "Olympia" on trial trip). There has thus been found a decided gain in the economy of propulsion of the triple cruiser "Minneapolis" over the twin cruiser "New York" of 11.9 per cent., and over the twin cruiser "Olympia" of 21 per cent.

The above reductions were made in order to compare the performance of these American-built cruisers by what is known as Froude's law.

As this was objected to in many naval circles, the actual performance of these cruisers was reduced to another standard of comparison, considering the differences in length, as well as its relation to displacement. Designating the efficiency of propulsion as the ratio of the actual useful work done in propulsion to the indicated horse-power of the engines, it was found that the triple screws of the "Minneapolis" still showed a remarkable gain in efficiency of propulsion, being 11.8 per cent. over the twin screws of the "New York" and 19.38 per cent. over those of the "Olympia."

The characteristic quality of cruisers is that of their ability to steam at great differences of speed. Whether running from or chasing an enemy, or carrying out diplomatic relations with dispatch in time of peace, the most difficult problem has been to provide for an economical performance of their machinery at the several ranges of speed required. It was formerly accomplished, after a manner, by applying the disconnective principle to the design and construction of their high-powered twin-screw machinery. In this way, one or more cylinders of a multiple cylinder engine is disconnected or thrown out of gear, when

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

cruising at moderate or low speeds, to insure a more economical working of the remainder. Unshackling two or more connecting rods and eccentric straps of twin-screw engines, as provided for in the "New York" and "Brooklyn," is certainly inconvenient, liable to cause delay, and usually at a most critical time.

The only alternative is to adopt the distributive system found so successful in operating our largest electric power plants under their varied conditions of load. In this manner the subdivision of great powered engines into units is based on the principle that every type of engine has a certain load under which it will work with the least rate of coal consumption. So in the case of our new cruisers it was deemed best to obtain the varied powers required by the usual range of cruising speeds by throwing out of or into use one or two complete engine units, instead of one or two cylinders of each engine of a twin-screw vessel. That is to say, the "Columbia" and "Minneapolis" are enabled to cruise at all of the usual ranges of speeds, with one, two or three screws, as may be required, but in all cases at the most economical rate of coal consumption. It is more economical to get 5,000 horse-power required for a moderate speed by using the 7,000 horse-power centre-screw engine than it would be to try to obtain the same power by working the two 10,000 horse-power engines of a twin-screw vessel at one-quarter load each.

As long as government has to buy coal it will remain a business policy to so design and install the engines of war vessels that they may be operated under the most economical conditions of fuel consumption under the varied requirements of the naval service. If this can be done without in any way lowering the speed or destroying manœuvering qualities, it will remain a serious question whether it is advisable to longer adhere to twin screws for war vessels, instead of adopting the triple-screw types of the "Minneapolis" and "Columbia." In the case of these, also, it is yet to be shown that the drag of one or two idle screws, though on uncoupled shafts, demands so much power that it will more than offset the great gain in economy due to the use of each engine at most economical load. The performance of the "Columbia" in a six-hour test, with one, two and three screws, has proven that for the power developed and the speed produced she is quite as economical as any single or twin-screw vessel under like conditions.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Foreign navies have already recognized in the triple-screw the solution of the problem of the economical distribution of power. The French Government have the 11,700-ton ironclad "Masséna," and two new 8,500-ton 23-knot cruisers are projected, all with triple screws. After alterations and modifications to the "Kaiserin Augusta," with greatly improved performance, the German Government has ordered further exhaustive trials with a view of fitting out several ships with triple screws.

The standard four-hour contract speed trial was required of all the new cruisers which were built in private shipyards, after the three Roach cruisers, "Atlanta," "Boston" and "Chicago." It is to this requirement, no doubt, more than to any other, coupled with the speed premiums, which have so rapidly developed our new navy. The trial really consists of two-hour runs, one each way, over a measured course. The latest course used for the "Columbia" and "Minneapolis" is from Cape Porpoise to Cape Ann, 43.968 knots. Eight ships anchored at known intervals along the course note the time of passing of the trial ship and the tidal current. Tidal corrections being added to or subtracted from the known length of the course, the true distance made good by the ship is ascertained; this, divided by the observed time on course, gives the speed attained.

The contractor is allowed to make one or more preliminary "builder's trials." A force of trained engineers and observers, oilers and stokers, picked coal and a clean hull, with favorable conditions of time and tide, of wind and weather, if possible to command them, co-operate with detailed naval engineers. Forced draft is of course used. All engineering instruments in use are carefully standardized by most approved methods. Prearranged signals announce the time when observations are to be taken. The ship is allowed to get up to her speed at least half a mile before coming on her course.

The maximum speeds attained were as follows: For the "Columbia," 24.77 knots, on passing the second stake boat, on run south, and 25.30 knots on passing last stake boat on run north, with an average corrected speed of 22.8 knots, on 18,509 total indicated horse-power; for the "Minneapolis," 24.01 knots on passing fourth stake boat, on run south, and 23.8 knots, on passing sixth stake boat on run north, with an average speed, corrected, of 23.073 knots, with 20,862 total indicated horse-power.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The now historical run of the "Columbia," from Southampton to New York, entirely under natural draft, shows conclusively that the contract speed conditions are capable of being almost reproduced in actual service, if required. The maximum speed for any one hour of her transatlantic run was 20.6 knots; and the official time of the run was 6 days, 23 hours and 49 minutes, representing unprecedented performance for a man-of-war over long distances at sea.

The naval reserve cruisers, the "St. Louis" and "St. Paul," have been specially designed to be easily converted into armored cruisers. They represent the beginning of the new policy of the government to favor home shipbuilding by government subsidy of merchantmen. The 11,629-ton "St. Louis" won the ten-year mail carrying contract by developing a speed of 22.5 knots on a four-hour trial in British waters, using ordinary coal, under practically natural draft, and developing 20,000 horse-power. These two vessels are the first transatlantic liners and naval reserve vessels to be fitted with quadruple expansion engines. It remains to be seen whether this policy will ultimately defeat the projects for any more war vessels of the cruiser type. Not that the United States navy has reached its ultimate goal in such magnificent triple screw cruisers as the "Columbia" and the "Minneapolis," but that merchantmen will now be likely to step in, develop their high-powered marine machinery along these lines, if so demanded by government subsidy, and provide for equipping their steamers at any time with armor and guns for war purposes. While these $3,000,000 cruisers are expensive articles at any time, but, especially so in time of peace, the merchantman is paying dividends by regular freight and passenger traffic and government mail subsidy, and holds himself equally available in time of war for government service.

W. S. ALDRICH.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

TEST AND VALUE OF SPEED IN WAR-SHIPS.

BY ADMIRAL P. H. COLOMB, R. N.

SPEED in war-ships is like all comparative things to which a great deal of attention is given, and which begin to approach the limits of possibility. There is a constantly growing desire for accuracy of statement with regard to it; a constantly diminishing area within which variations are allowed to pass without notice, and a constant increase in the number of elements which we are compelled to take account of in calculating the area. The comparison grows ever closer and finer as elements are struck out of it which are not common to both the things compared.

But perhaps the present rage for nice excesses of speed over something which has been done before, necessarily calling in question the methods of measuring those niceties, is spurred on by special considerations. There is a distinct element of sport in it; and without question there is money in it. Quite apart from the money element we have national rivalries; naval architects' rivalries; engineers' rivalries, and the rivalries of simple sportsmen who are backing particular horses without having bets on them and without any special knowledge of their stables or trainers. Apart from the sport of it, there is pure business, and a living to the naval architect and the engineer.

It would be strange indeed if all these elements did not continually tend to narrow the issues and refine upon them; and if the narrowing and refining did not tend to make the ultimate fact still more difficult to determine. In yacht sailing, which is the faster of two yachts is determined directly by a race. We should know distinctly which was the faster of any two steamers under given conditions, and under common rules for tonnage, could we match them as yachts are matched. But could we

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

even do so, we should find difficulties arising which do not arise in sailing matches. If two steamers of nearly the same reputed speed were to be matched for a race, one against the other, it would by no means follow that the one that beat in the first match would again beat in a second or a third. Too many elements which are variable enter into the production of speed, to make a certainty of a place in the comparison even after several matches have been run. There is the kind of coal, the skill of the stokers, hot bearings, tendency to prime, and a hundred and one things, which are not common to both ships as wind and sea are, that may on any occasion spoil the comparison. But, if it were not so, running races to ascertain the comparative speeds of steam war-ships is not practicable, and is never carried out as it constantly was in the days of sailing ships. We are therefore thrown back on ascertaining the absolute speed of steam war-ships, and making comparison of the results in order to ascertain the relative speeds of any two of them. We say such a yacht beat such another, with very little reference indeed as to whether the average speed over the course was two knots, or ten knots; but we say such a steamship went 19,235 knots, and such another went 19,740 knots, and we assume the second ship to be faster.

Whether she is faster is another question altogether, and nothing, I suppose, strikes the naval officer in conference with the naval architect and the engineer more than their extreme indifference, as it appears, to the question of speed. Naval officers, amongst themselves, worry their souls out over the question of relative speed as deduced from comparisons of absolute speed, without always considering that speed, when they speak of it, is a relative matter which the statement that A went twenty-two knots, while B only went twenty-one, does not determine. If yacht A beats yacht B, it is not meant that yacht A took only nine minutes to pass over a certain distance while yacht B took ten minutes. Yacht A might take eleven minutes to pass over the distance that yacht B took only ten minutes to pass over, and yet yacht A might win the cup. Yacht A enjoys an allowance of time for tonnage which makes all the difference, and she might be accounted the faster, though as a matter of fact she is the slower, ship.

Hence, when we come to compare the absolute speed of

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

steamer A with the absolute speed of steamer B, we may possibly say that in a race steamer A would pass over a given space in a shorter time than steamer B would, but we have no right to say that she would always do it; we must not even say that she would generally do it. Still less must we pronounce that B is by so much, a failure.

Before we can say that steamer A would pass over a certain space in a shorter time than B, we must know what were the conditions of measurement which resulted in showing that A went 22 knots and B went only 21. If we find the conditions were identical for both ships, we can still only say that A would go faster than B under those conditions. The power which drives a sailing yacht, being the wind pressing on a certain area of sail, is fixed by the force of the wind, so long as the area of sail is maintained. But the power which drives a steamship, being dependent on the heat manufactured on board her and applied to the evaporation of water, must vary from the moment the manufacture is begun. At the beginning of the steaming, more heat may be manufactured and it may be better applied to the water, than it can possibly be later on. Stokers may become exhausted; the difficulty of supplying coal from the bunkers may increase; the fires may get foul; boiler tubes may choke; a hundred circumstances arise to make the results of a lengthy trial different from the results of a shorter one. Unless A and B are identical in all these variable speed-producing elements, it does not follow that A would beat B over a different course from that over which the speed of both was measured. A may have been found capable of steaming at the rate of 22 knots, and B at the rate of 21 knots, for half an hour; but would either of them maintain that speed for four days? Would either of them maintain it for twenty-four hours? No one can tell until the experiments have been tried. Such experiments as have been tried make it generally understood that the extreme speed at which a steamship can be driven for a very short period can never be maintained over a much longer one. Of any two steamers capable of realizing a certain speed for half an hour, the better is the one which shows least falling off during a longer trial. But the moment we begin to speak of longer and shorter trials, we are met by the point that it will certainly be easier to ensure common conditions of measurement over the shorter than

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

over the longer one. We can wait for a calm day, and we may use perfectly sheltered water, without swell, for the trial during a short period; but we must go to the open ocean, and face all conditions of varying wind and sea, for a longer trial. When a steam trial is carried out for half an hour in the United States, in Russia, France or England, in sheltered, and, therefore, smooth water, and in calm weather, the reported results are fairly comparable. If it was understood that all possible means were used to attain the maximum speed for this half hour only, without reference to continuing it, the comparative test would be the better. It can only be made worse, if some of the ships are tried in this way, and others are tried under conditions of steaming that could be maintained for more than half an hour. But if the ships are tried for long periods at sea, there is no guarantee that the conditions of wind and weather during the periods are alike. Indeed, it is almost certain that no two sets of conditions can be alike, or that similar wind and sea will attend any one trial from first to last. Hence, although for any individual ship long sea trial may show her doing better or worse, the long sea trial may not turn out so good a comparative trial for different ships, unless, indeed, there are so many of them that the mean results can be taken as eliminating differences of condition. A steamer which over and over again crosses the Atlantic in a shorter time than another one, may certainly be pronounced the faster ship. But if it be reported that war-ship A steamed 15 knots for four days at sea, and that war-ship B only steamed 14 knots for the same period, there is a presumption in favor of A's being the faster ship; but many repetitions of the same trial must be made before the presumption passes into the domain of certainty.

Here we have points of contest and controversy which have been opposed to one another ever since we began to measure speed with a view to comparison, and will possibly be always opposed. The best means of measuring for comparing speed with speed in different war-ships, when we are thinking only of the first performance of the naval architect and the engineer, is seldom the best means of comparing the actual steaming powers of the two ships in sea voyages. In a general way it will no doubt follow that if one ship is found to run at the rate of 20 knots for half an hour, while another can only be forced up to a

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

speed of 15 knots for the same time, then the 20-knot ship will beat the 15-knot ship in any longer or shorter run at sea, provided the water is smooth. But if the 20-knot ship is of a character to be much affected by sea, while the 15-knot ship is little affected by sea, then in a sea-trial against strong head wind, the 15-knot ship might beat the 20-knot ship. But it is impossible that the naval architect and engineer should cease to regard as paramount the results of short trials, where comparisons can be more strictly drawn; it is equally impossible that the naval officer should cease to make light of the accurate comparison, and to lay the highest stress on what he understands to be the sea-performance of the ships under comparison.

And yet it seems equally certain that, while in this frame of mind, naval officers, and perhaps the general public, must suspend their judgment. If it were practicable to make a very large series of steam trials by running warships many times across the Atlantic, as the liners are run, each at the highest attainable speed, we might be able to take firm ground in the matter of sea performance. But such a course being utterly out of the question, we must accept the results of sea trials of war-ships as more or less tentative, and not capable of being applied as exact comparative elements.

But even supposing it were otherwise; supposing it were possible to get sea-trials of speed which extended over long periods, and were actually comparable one with another, we should have done little or nothing towards a comparison even of speeds. For just as the time allowance must be counted before any yacht can be judged a winner, so there must be a time allowance for the smaller steamships, before the larger one of greater trial speed can be accounted a better performer than the smaller one. And this, if we disregard the general question for the moment, follows directly because experiment has shown that if two similar steamships are driven at the same speed, but are of different sizes, then the larger ship will require less proportionate power to drive her than the smaller one.

But in fact, the general question of the war ships swallows up utterly the particular question of her speed, and forces the discussion of comparative speeds on to a platform which is entirely academical, and more or less useless and misleading. The growth of speed is one of the most remarkable naval growths at

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

present under our notice; it absorbs so much of our attention that we are unable to value it, or even to contemplate it, with duly balanced minds. The position to which we have elevated mere speed is indeed a preposterous one, except in the cases adverted to by me in the April number of this REVIEW. We do talk about it as if it were the be-all and end-all of the naval position of any country, and even English naval writers pronounce the doom of their country because—as alleged—we had not a ship which could cross the Atlantic at the same speed as the "Columbia" did. As a matter of fact we pay very little attention to it in the designs of our ships, as the following table will exhibit at a glance.

Ship's Name.	Displacement.	Speed.	Proportion to 1,000 tons.
Majestic	14,900 tons	17.5 kts.	1.17 kts.
Theseus	7,350 "	20.0 "	2.66 "
Scylla	3,400 "	20.6 "	6.00 "
Phoebe	2,575 "	19.0 "	7.37 "
Speedy	810 "	20.2 "	24.92 "
Havock	250 "	26.7 "	106.80 "

Here we have the time allowance which we find in yacht racing put all the other way. The larger yacht must be handicapped because she is expected to have the greater speed as a consequence of her greater size. Here the handicapping should be all the other way. The larger the warships, the less the speed. The reason is simple enough and the result is anticipated and intended. If engine power proportioned to the displacement had been put into each of these ships we should have expected to see perhaps a continual fall in speed as the displacement grew smaller; because a better result in speed is got out of proportionate horse-power when it is applied to the larger ship than when it is applied to the smaller, all things being similar. But the fact is that for reasons apart from speed, the larger the ship, the less is the proportionate horse-power applied to her; or, the smaller the ship, the greater is the proportionate horse-power applied to her. This is shown in the list below.

Ships' Name.	Displacement.	H. P. Per 1,000 Tons.
Majestic	14,900	800
Theseus	7,350	1,632
Scylla	3,400	2,729
Phoebe	2,575	2,912
Speedy	810	5,806
Havock	250	14,000

We have here, not only the general law that seems to prevail amongst modern war-ships, that speed increases in the inverse

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ratio of the displacement, but that designers consider speed a less and less important "element of force in a war-ship" as she grows larger. In other words, it is distinctly absurd to lay any stress on the bare fact that one war-ship has a greater sea-speed than another. There is nothing whatever in the comparison. It may—and in fact generally does—only mean that one designer lays more stress on speed, and less stress on some other element, or elements of force than another does. It is of no value to say that A can keep up a speed of 15 knots at sea for four days, while B can only keep up a speed of 14 knots for the same time. The statement means nothing whatever that is useful, that can guide anyone, or afford praise or blame to anyone. To make the statement mean anything, it must be added that both ships had the same displacement, the same armor, the same guns, the same ammunition, the same supply of stores, provisions, coal and water, the same torpedo armament, the same manœuvering power, the same crew; and the same cost. Then, indeed, if A steams a knot faster than B for four days, there is a failure on the part of the designer or the engineer of B. There is something in the form or design of the hull, or in the design or manufacture of the engines or boilers, which is absorbing weight that should have gone into speed. But if A has fewer, or smaller guns, less armor, less ammunition, less coal, water, provisions or stores; fewer torpedoes, or a smaller crew; who is to say that the loss on any one of these things is balanced by the knot of higher speed? We get at once into the region of simple opinion over such a discussion and can neither stop short of it, nor advance beyond it. The proportions that the different elements of force in a war-ship ought to bear to one another, are governed principally by conjecture; or, as I put it in a former article in this REVIEW, by fashion.

But this kind of discussion over comparative speeds seems to suppose that there is a great deal more chance in the speed of a war-ship than really exists. As a simple and well-known fact, if the designed horse-power is realized in any war-ship, the designed speed is almost sure to be realized within a decimal. Long continued record of the performances of different ships, and most especially the systematic experiment with models designed by the late Mr. Froude, and now carried on by his son, almost preclude the possibility of error. There is seldom any great departure from

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

former designs in new ships of the same class, and if there is, the change is thoroughly tested in model before it is put into force. It follows that if the indicated horse-power of any engines produce the expected proportions of effective horse-power, and if the indicated horse-power designed is realized on the trial, the speed is sure to be realized. The fact accounts for the indifference to speed which is manifested by the naval architect and the engineer, and which, as already mentioned, surprises the naval officer. All the tests that are or can be applied to ascertain speed are, therefore, tests to ascertain whether a certain indicated horse-power can be reached and maintained. The measured mile trial being the ascertainment of the time the ship takes to run a mile, and the indicated horse-power during the run, is a test of reaching, but not of maintaining, the designed indicated horse-power; but it is the most accurate method of comparing speed and horse-power, and without it we never could have reached the condition now arrived at, that speed is embraced in the horse-power developed.

The measured mile trial ought to show the very best that is within the capacity of the ship tried, if it is fairly carried out. The general complaint of it, that it does not usually represent the sea-speed over a long run, is simply a mistaken one, made in forgetfulness of the fact that comparative measured mile trials properly conducted approach an accuracy of measurement which is not attainable in a sea-trial over a long period. Time will come when it may be possible to apply a co-efficient to the measured mile trial for ascertaining the sea speed which will be generally accepted. For the present we can but apply both systems of measurement—the measured mile trial to gauge the capacity of the ship to reach a definite horse-power, and therefore a definite speed, and a sea-trial extending over a longer period in order to ascertain the ship's capacity to maintain any definite horse-power and therefore speed for given periods.

But in both cases, all accuracy of measurement depends on similarity, or if the word is appropriate, fairness, of the trials. It is commonly accounted more easy to "jockey" on the short measured mile-trial than on the long sea-trial. Perhaps it is; but on the other hand care is required that the ship be not unfairly treated. My own experience in conducting these trials showed me that, sometimes at least, the measured

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

mile-trial underestimated the actual capacity of the ship. There are instances where it has been found that after the ship got to sea she developed greater indicated horse-power, and therefore greater speed, than she had shown on the measured miles-trial.

Comparisons between the capacities of any two ships are liable to be marred both in measured mile and in sea trials, if the conditions as to weights on board are not uniform. The calculations for indicated horse-power and speed are made for a given displacement which is that settled by the presence of the "legend" weights on board. These embrace all that the completed ship would go to sea with, including a certain defined proportion of coal. In the larger classes of ships in the English navy, and probably now in most others, it is not usual to make speed trials with the full amount of coal which the ship can carry on board. There are usually "reserve bunkers" which are not filled up. The justification of the practice has been well put by the late Italian naval *attaché* to the embassy in England. It would not be fair to place the ship's steaming capacity at its worst, when it is certain that it would improve as the coal was burnt. And when the "legend" weight of the coal is on board and the amount of it can be compared with the "legend" displacement, the comparison between the steaming capacities of any two ships is not marred. But of course if one ship is tried at less than her legend displacement, another at her legend displacement, and a third with her reserve bunkers full, the last two, but especially the third, are unduly handicapped against the first, which gets a credit on trial that she does not deserve.

In the English navy, the "contractor's trial," which must be made before the engines are received, does not necessarily include a measured mile trial, or generally specify displacement. It is a trial carried out over periods settled in the specification, and is to determine the reaching and maintaining of the horse-power contracted for. This power is often, if not generally, exceeded when the trial is made; but of course it is easier to reach it when the ship is light than when she is at her load draught.

The real trial in the English navy is called the "commissioning trial" and is carried out with all ships which are newly commissioned, before they go finally to sea. The legend weights are all on board. It is carried on for three hours under "natural

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

draughts," which, with closed stoke holds and fans, is a pressure of air not exceeding half an inch to an inch of water according to the nature of the boilers. The speed so certainly follows the indicated horse-power, that on this trial the ship may not be put on the measured mile at all. In fact she would not be unless there was any question about the speed. But the length of the three hours run would be measured by the best mechanical means, such as by the use of the electric log. The trial is considered satisfactory if the designed indicated horse-power is reached and maintained. But it will be found that the speed now ascertained either on the run, or on the mile, will not be thenceforth quoted against the ship. It is much more likely that the designed speed will be associated with the name of the ship in all the lists, doubtless because if the horse-power is realized, the speed will also have been realized.

The introduction of forced draught has introduced one of those new elements to be taken note of before comparisons are made. If one ship uses half an inch pressure and another an inch and a half, the comparison is vitiated; and unless we know that both ships use the same pressure we cannot make more than a rough comparison, for it is admitted that high pressure of air cannot be maintained without permanent injury to the boilers.

But when speed over a long period, such as three hours, is neglected in the report, and when only selected indicator diagrams are taken to represent the power developed, it becomes evident that "jockeying" is possible even on a period trial. The whole matter rests on proper orders being given as to the conditions of trial and strict adherence to them. Any nation which accepts comparisons apparently in favor of its ships which are only arrived at by allowing the conditions to be varied, lives in a fool's paradise as far as the speed of its war-ships is concerned. It is not likely that any nation permits such things on any scale at least. In the English navy the precautions against "jockeying" appear to be full; and my own experience was that they were sufficient. It was, and I suppose is, impossible to unite the whole staff engaged on the trials in a desire to represent things as being better than they were. Although it is not easy to say always, in the case of every foreign ship, that her reported speed trials may accurately compare with those of our own ships, yet as the designed horse-power and speed are generally quoted against the ships, divergencies are probably narrowed.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

In the British navy, the trials that the public hear least of, or at any rate take least note of, are the best to go by. Every ship in commission in the navy is run for twenty-four hours once a quarter with developed horse-power equal to three-fifths of the authorized full power with natural draught. In these trials displacement is taken as it may be, and, in spite of care, weather may interfere to mar comparison. But in a three years' commission the mean of twelve trials must be a very good measure of the steaming capacity of the ship, especially as during four hours out of the twenty-four she is run at the full speed of her natural draught. Probably, for comparative purposes, the mean of twelve of these runs would be the best of all available comparative tests.

The tendency of these remarks is to show that it may be fallacious to devote as much attention as we now do, exclusively to the consideration of measured speed. We should, if we were wise, never consider the element of speed alone; never lose sight of the difficulties lying in the way of accurate comparison, and never forget that excess of speed invariably means the reduction of some other element of naval force among ships of the same class. The materials for drawing comparison between methods of measuring speed employed in different countries are not yet available, but, as the designed speed is that usually quoted, the point is of less importance.

P. H. Colomb.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

NAVAL WARFARE UNDER MODERN CONDITIONS.

BY ADMIRAL S. B. LUCE, U. S. N.

THE battle of the Yalu and the battle of Lissa furnish two very striking illustrations of naval warfare under modern conditions. Both are replete with lessons applicable to naval operations of the future. The one shows how naval successes may be insured by a careful training of the *personnel* during peace; by a study of the operations of war as conducted by the great masters of the art, and by applying the immutable principles of naval strategy to the solution of war problems as they present themselves; the other, how a want of discipline, inattention to drills in naval tactics and gunnery, and a disregard for the most elementary principles of the science of war, must inevitably lead to disaster: while each, in its own way, demonstrates the truth that in every naval government there should reside some wise directive power whose special and exclusive duty would be to deal with the mobilization of the fleet and the direction of its military movements.

An indispensable condition in the creation of an efficient navy is the creation of the power to use it intelligently. The principal incidents in the recent naval campaign of the Japanese are still fresh in the public mind. Not so with the battle of Lissa. It may not be out of place, therefore, to recall the first collision between iron-clads and rams since the "Monitor" revolutionized the naval construction of the world. With the grand scheme for the unification of Italy, there was associated in the minds of Italian statesmen the idea of a powerful navy to guard their coast and menace Austria. "Italy," it was declared, "must be queen of the Adriatic." The entire nautical world was then feeling the full impulse of the changes in naval science wrought by the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

novel creation of Ericsson, the chain armor of the "Kearsarge," the speedy sinking of the "Alabama," and the achievements of Farragut and Porter. Young Italy falling into line with the great naval powers determined to have a navy built up on the most advanced ideas, which included, of course, an iron-clad fleet. Lavish expenditures were made to that end. The sister ships "Rè d' Italia" and the "Rè di Portogallo," of 5,700 tons burden, carrying 36 guns each, and a crew of 600 men, were built by the eminent shipbuilder, Mr. Webb, of New York. The "Affondatore," monitor and ram combined, was the production of an English shipyard. In her turret she carried two 300 pounder Armstrong guns, and had a spar thirty feet long. She was over 4,000 tons burden.

These, and the "Formidabile" and "Terribile," 2,700 tons and twenty guns each, would compare favorably with iron-clads of like ratings of other navies of that day. Altogether, the Italians had, at the time to which we refer, a fleet of twelve iron-clads, six fifty-gun frigates (wooden), two sloops of war of thirty-two and twenty guns, together with gunboats and smaller craft, amounting altogether to some thirty vessels. But money could not buy organization, nor discipline, nor sea training, and these the Italian fleet lacked. Admiral Count Carlo di Persano, the commander-in-chief, was an officer of good reputation, but he does not seem to have given much attention to the higher branches of his profession, such as naval tactics and naval strategy, and was entirely wanting in the traits which inspire confidence in those under his command. The crews were raw and unskilled in gunnery, and the officers were inexperienced. Such was the fleet on which Italy rested her hopes.

In the process of the unification of Italy there remained in 1866, it will be remembered, but two principal points to be gained: the occupation of Rome and the acquisition of Venetia at that time under the dominion of Austria. On the 20th of June, Italy declared war against Austria and Bavaria; her ally, Prussia, having opened her brilliant campaign against those countries on the 18th. This was the beginning of the "Seven Weeks' War," which ended practically at Sadowa (Königgrätz), and resulted in the consolidation of the German Empire.

The Italian plan of operation, contemplated the immediate invasion of Venetia by the army; the fleet under Admiral Persano, to co-operate. But such co-operation was manifestly

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

impossible until there had been eliminated from the problem the Austrian naval force known to be fitting out under Admiral Tegetthoff, at Pola. This plan, however, did not meet with the approval of the king, Victor Emmanuel, and Persano was left to his own devices. General La Marmora led his army north and the King himself repaired to the seat of war. Here, on the ill-fated field of Custozza, after a long and bloody battle, on the 24th of June, the Italians were defeated by the Austrians under the Archduke Albert.

Whether the navy was to co-operate with the army or not, there can be no doubt that the true, in fact the only, objective of the Italian fleet was that of the Austrians. The destruction of that force, which alone disputed with the Italians the control of the Adriatic, was obviously the first step in a naval campaign. The attainment of this end was all the easier at the opening of hostilities, inasmuch as the mobilization of the Austrian fleet was greatly retarded by the financial embarrassments of the Imperial government and the meagre resources of the Pola Navy Yard. Instead of seeking out and destroying that force, Persano contented himself with an aimless cruise of five days, at the end of which time he returned to the Navy Yard at Ancona. Here he received a severe reprimand from the King for his want of enterprise, the latter stating that if he could not make better use of a force that had cost so many sacrifices and raised such high hopes he would be superseded. "Go and do something," said the government. "What!" exclaimed, in effect, the Minister of Marine, Depretis, who reached Ancona a few days later; "with a fleet that has added three hundred millions to our public debt, to say we cannot whip the Austrians at sea! the Austrians, whose navy we despise! Why, the people will mob us! If Tegetthoff declines battle, go and ravage the enemy's coasts. Lissa is only a short run from Ancona; capture that by a *coup de main*, and it will give you the control of the Adriatic. Do something; Custozza must be avenged!"

The plan of attacking the island of Lissa, the Gibraltar of the Adriatic, by a combined force of the fleet and a brigade of the army, was approved and immediately carried into execution. The movement commenced on the 18th of July, and after two days' bombardment, during which some damage had been done to the forts at San Giorgio, it was thought time to land the troops.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Early in the morning of the 20th the iron-clads were ordered in to engage the forts, and preparations were made for throwing a force on shore, when, all of a sudden, the lookout vessel "Esploratore" was seen approaching from the northwest with the signal aboard that the enemy's fleet was in sight. To say the Italians were taken by surprise would not be strictly true. When the island was first invested, Captain Sandri with a division of four gun-boats had been sent to Lesina to destroy the telegraphic cable connecting Lissa with Pola. In the execution of this duty there was intercepted a dispatch from Admiral Tegetthoff to the commanding officer at Lissa which ran very much like that General Sherman is said to have sent to Gen. John M. Corse: "Hold the fort for I am coming." It was clear from this that the Austrians on the main land had been notified by telegraph of the bombardment, and that the Austrian fleet was on its way to assist the forts and prevent a landing. The intercepted message was conveyed to the admiral who treated it as a ruse on the part of the enemy, and continued the work of investment. When, therefore, the signal was thrown out from the flagship "Rè d'Italia," "*Enemy in sight, prepare for action,*" the great majority of the fleet was thrown into a state of consternation. Few had even so much as dreamed of such a possibility. The "Terribile" and the "Varese" had been sent to occupy the attention of the forts at Porto-Camisa, in another part of the island. The "Formidabile" which had sustained a heavy fire from the forts at San-Giorgio was transferring her wounded to the hospital ship "Washington," and was herself so badly shaken up as to oblige her to go to Ancona for repairs. The "Rè di Portogallo" and the "Castelfiardo" reported by signal injuries to their machinery; and the wooden vessels were quite unprepared for battle. In the whole fleet sixteen men had been killed and ninety-five wounded, and coal and ammunition had been liberally expended. The "Rè d'Italia," alone, had fired 1,300 shot.

Vice-Admiral Albini, in command of the wooden or reserve squadron, was ordered to re-embark the landing party, and the iron-clads were hastily formed in line abreast, each ship heading for the enemy or to the northwest. Standing on this course for a short time, signal was made to form column of ships heading northeast. This was effected by the simultaneous swinging of each ship ninety degrees to the right, thus bringing her broad-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

side to the enemy. In this formation we find Rear-Admiral Vacca in command of the van division of three iron-clads; Persano in the "Rè d'Italia" in the centre, and Captain Ribotty in the "Rè di Portogallo," in command of the rear. Beyond this crude order of battle there was no plan, and none of the captains knew the intentions of the commander-in-chief. Persano *supposed* that Vice-Admiral Albini and his eight frigates would form a second line as a reserve; but the Vice-Admiral, thinking wooden vessels were not intended to cope with iron-clads, busied himself with getting together the materials that had been intended for landing. His division might as well have been at the navy yard in Ancona.

Meanwhile, the Austrian fleet was bearing down in column of divisions, each formed in double echelon, or wedge shaped, the point towards the enemy. The van was composed of seven iron-clads, the "Ferdinand Maximilian" (commonly known as the "Max") bearing the flag of Rear-Admiral Tegetthoff, leading. Astern of this at a distance of about 1,000 yards came the centre division of seven wooden ships in double echelon, the "Kaiser," an old ninety-gun ship leading. About 1,000 yards astern of the latter came the rear division of wooden gunboats in double echelon. They advanced in fine order, for Tegetthoff's plans had been carefully matured, were well known to his entire command and his drills and exercises had been incessant. The spirit which he succeeded in infusing into the *personnel* of his fleet more than made up for numerical inferiority. He had "put the iron," as Farragut said, "into the hearts of his men."

On sighting the Italians, the "Max" threw out the signals "Clear ship for action"; "Close up;" "Full speed": finally, at half past ten, "Iron-clads ram the enemy." Both sides now closed their signal books; Tegetthoff's, because his plan of battle was thoroughly understood and would be carried out; Persano's, because he had no plan.

As the shock of the collision was about to take place, the Italian Admiral shifted his flag to the "Affondatore." This necessitated stopping the "Rè d'Italia" and the centre division, leaving a gap between it and the van. Through this opening the Austrian van dashed, thus severing the Italian line. Covered by the smoke of its own fire it received no damage. Vacca, with his division, now swung around to the westward to cut off the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Austrian rear. About the same time Commodore Petz in the "Kaiser" and the division of wooden ships, stood to the southward to cut off Albini's division of wooden ships. Seeing this, Ribotty interposed with his three iron-clads. Nothing daunted, the Austrian wooden ships grappled with the Italian iron-clads and the "Kaiser" ran the "Rè di Portogallo" aboard. The shock carried away her own stern and bowsprit, bringing down the foremast and smokestack; the decks were filled with fire and smoke and, grinding alongside the iron-clad, received her fire at the very muzzles of the guns. That she was not blown to pieces lends an air of probability to the story that the Italian gunners, in their excitement, fired blank cartridges! The "Kaiser," however, still firing, passed on and was met by the monitor ram "Affondatore." One touch of her spur would have proved fatal. On she came at right angles. Nothing, it seemed, could avert the old line-of-battleship's doom, when, to the surprise of all, the monitor sheered off and passed harmlessly by, receiving at close range the "Kaiser's" entire broadside. It was Persano himself who had ordered the helm put over!

The Italian van and rear being thus engaged left the centre to stand the brunt of the seven Austrian ironclads. The order had been given to "ram everything gray"—the Italian ships being lead-color, while the Austrians were black. On a sudden, by a lifting of the smoke, Tegetthoff saw right ahead a gray immovable mass. It was the "Rè d'Italia" hopelessly disabled. The order was at once telegraphed to the engine-room, "Full speed ahead," and "Prepare to back," and the 4,500 tons of the "Max," driven at a speed of eleven and a half knots, struck the Italian fair and square in the side. She listed heavily over, and then, as the "Max" backed away, righted, and in less than two minutes went down in 200 fathoms of water. Four hundred of her crew perished. The "Palestro," also of the Italian centre, was set on fire by an Austrian shell and blew up. This practically ended the fight, the Austrians being now inshore and covering Lissa, the Italians to seaward. Tegetthoff, after waiting two hours and finding the Italians indisposed to renew the battle, took his fleet into the harbor of San Giorgio. The Italian fleet returned to Ancona. Persano, being a Senator, was tried before the Italian Senate sitting as a High Court of Justice. He was acquitted of the charge of cowardice,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

but found guilty of negligence and incompetency, and dismissed the service.

The object of military strategy, says Hamley, is so to direct the movements of an army that when the decisive collisions occur it shall encounter the enemy with increased relative advantage. The same may be predicated of a fleet.

The triumph of military strategy is said to be complete when the commander of one of two originally equal forces succeeds, by the combinations of the campaign, in bringing his adversary's army into a position where the chances of victory are greatly against it, and where defeat will entail disasters beyond the loss of battle. By a reversal of this principle the Italians courted defeat. Naval strategy is more comprehensive than military strategy. The latter is confined to the theatre of the war, the former may embrace all the navigable waters of a continent. Military strategy is called into play only during war. Naval strategy adopts some of its most important measures during peace, in anticipation of war. Naval strategy, in brief, has for its end "to found, support, and increase, as well in peace as in war, the sea power of a country."

In this broad acceptation of the term, the Japanese have shown themselves to be naval strategists of a high order. They had a definite naval policy, so essential to a right beginning in the building up of a navy; they created a navy in accordance with that policy; they mobilized their fleet in anticipation of hostilities, and in the waters of Korea gave a most practical demonstration that they knew how to use it.

Jomini divides the Science of War into six branches, beginning with "Diplomacy, or Statesmanship in its Relation to War." It is here where the naval strategist and the statesman at the head of a navy meet on common ground. In military governments the two are often combined in one person. But even where this obtains, the varied and exacting demands upon the time and attention of a Minister of Marine, in the transaction of the ordinary business routine of his office, are incompatible with the military duties of the naval strategist. It has been justly observed, in this connection, by one of our own Secretaries of the Navy, that "the inevitable result of throwing large executive duties upon any man is to disqualify him for council."

Therefore, to assist in the discharge of the most important

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

functions, those pertaining to the military branch of the department, there is generally assigned to the aid of the Minister of Marine a naval general staff, having at its head as chief an officer of rank and recognized ability. It is due to their early perception of the wisdom of such a division of labor, that the Japanese owe, to a very large extent, their recent successes. The victories of the Yalu and Wei-hai-wei were the natural fruits of a long course of preparation, which could not have been originated, and so faithfully carried on, as all accounts show them to have been, by a Minister of Marine alone, nor by a naval strategist alone, but only by the united efforts of both. It is not surprising, therefore, to find that the force of naval organization suggested by theory, and carried into practice by the great naval powers, is the one adopted in the main by Japan. It is there that will be found, most distinctly marked, the line separating the civil from the military duties of the navy department.

Although the Minister of Marine may be an admiral—as at present Admiral Marquis Saigo—yet he confines himself to the civil branch of his department, while the military duties are performed by a naval general staff having for its chief an officer of high rank and experience. Such is Count Kabayama. Under the latter comes the mobilization of the fleet, the direction of its military movements, and all that pertains to the military branch of the naval establishment. Hence their success.

Naval tactics have made little progress, as an art, since the days of Lissa. No one has yet risen to state authoritatively how the line of battle should be formed. It is still left to the Commander-in-Chief of a fleet to make his own dispositions for battle.

The habit of trusting to "the inspiration of the moment," and of leaving everything to the "accidental ascendency of an individual will, in an accidental grouping of officials," is fraught with danger. It may produce a Tegetthoff or perchance a Persano; it may create a fleet like that of Ito, ready for the war that must sooner or later overtake the most peaceful nation, or one ill formed and ill found like that of the brave but unfortunate Ting.

S. B. Luce.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE INFLUENCE OF THE AIR-SHIP ON WAR.

BY LIEUT. JOHN K. CREE, U. S. A.

THE art of war keeps constant pace with the sciences, taking advantage of all discoveries and inventions which may be found of use. Money without limit is spent to obtain the most efficient results in steam and electrical engineering, in chemistry, optics and metallurgy. The demands which modern war makes upon science are usually more imperative than those made for civil and commercial purposes. It may be readily understood, then, that, should a successful air-ship be constructed, it would find immediate occupation in the armies of the different nations who are rivalling each other in warlike preparations.

But is the success of the air-ship probable? Eminent engineers and scientists have for some time conceded that many of the important obstacles in the way of artificial flight have been removed, and it now seems probable that within a few years all problems connected with it will be solved, and a machine capable of sustained flight and entirely under control will be an actual fact.

The many failures of attempts at flight have made people sceptical in regard to success, and the ridicule commonly accorded experimenters has doubtless deterred many scientific investigators and withheld the capital necessary to make experiments, but within the last decade exhaustive experiments in regard to the sustaining and resisting power of the air have been made by several scientists, notably by Mr. Hiram Maxim and Mr. S. P. Langley. It is now known what weight the air will sustain, what power is necessary to support a definite weight, and other facts which before were only guessed at. Experiments have

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

also been made to determine the best material and the best form for the sustaining planes and the propellers.

To secure a satisfactory motor has long been regarded as the most difficult problem to be solved in obtaining flight, and until within a few years no motor had been constructed capable of sustaining, in addition to its own weight, that of the aëroplane or other means of support, the supply of fuel and the engineer, etc., but within that time, improvements in the quality of metals, and especially the advances made in steam engineering, have made such an achievement possible.

The power necessary to sustain a man in the air has been variously estimated by several experimenters. Mr. S. P. Langley, in his experiments with planes on a whirling table, found that one horse-power, rightly applied, would support over 200 pounds in the air at velocities over forty-five miles per hour. Mr. Maxim found, in a similar series of experiments, that with a plane moved at an angle of one on fourteen, one horse-power would support 133 pounds. Mr. O. Chanute, in "The Progress of Flying Machines," states that as a general conclusion it may be said that, including the resistance of the machinery and framing, 100 pounds per horse-power is about the maximum that can be lifted, and he estimates that, in small aëroplanes capable of lifting one man, fifty pounds per horse-power is the greatest amount that can be allowed for the weight of the motor.

Motors have been constructed which will more than fulfil these demands. Mr. Langley has made a steam engine which, without the boiler, weighed only six pounds per horse-power. Mr. Hargrave, of Australia, has constructed a small engine which weighs only 10.7 pounds per horse-power. Mr. Maxim's engines of 300 horse-power weigh, with boiler and condensers complete, only eight pounds per horse-power, while the engines alone weigh only two pounds per horse-power. He considers it practicable to build an engine, boiler, condenser, etc., complete, which will weigh only five pounds per horse-power. Mr. Mosher, who built the steam yacht "Norwood," has stated that he can supply engines for experimental flying machines of less than ten pounds per horse-power.

The question of a suitable motor being disposed of, the most important difficulties remaining are successful alighting after flight and a satisfactory method of retaining equilibrium during

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

flight. It is not probable that these will long remain obstacles in the path of the many investigators now interested in the work.

During the last twenty-five years the French have been interested in the dirigible balloon, and have had partial success with it. The "La France," which attained the greatest success, was cigar-shaped, 165 feet long, and, with a nine-horse-power electric motor, attained a speed of fourteen miles per hour. A larger one is now projected that will make twenty-five miles per hour. While the dirigible balloon would be very useful, in the absence of anything better, the most experienced investigators claim that the aëroplane presents greater prospects of complete success. Many inventors are now experimenting with different forms of supporting and propelling machines. One of the most interesting is that of Mr. Otto Lilienthal, of Berlin, who, with a pair of bat-like wings twenty-six feet from tip to tip, has succeeded in flying 400 yards down the slope of a hill. In a recent model he uses a small motor, driven by compressed carbonic acid gas, to assist him in moving his wings.

Mr. Phillips, of England, has constructed a flying machine, weighing 330 pounds, which has a record of having flown 2,000 feet at the rate of forty miles per hour. While this machine was not absolutely free from the ground, it demonstrated its ability to raise more than its weight. The peculiar feature of it is the aëroplane, which resembles a Venetian blind eight feet high and twenty-two feet wide.

Mr. Maxim's aëroplane, which is one of the few air-ships that have ever succeeded in getting beyond the model stage, and the only one of its size that has shown itself capable of rising from the ground, offers great promise. It has 5,400 square feet of aëroplane. Its extreme length is 125 feet; width, 104 feet; weight, 8,000 pounds, and its lifting power at a velocity of about fifty miles per hour is 10,000 pounds. Its record of actual free flight is over 500 feet. Mr. Maxim says that after having been so successful in constructing this machine, "it only remains to continue the experiments with a view of learning the art of manœuvring it."

Since the perfecting of the air-ship in the near future seems so probable, it is certainly not out of place to speculate as to what would be its effect on warfare, since it would probably first be used for that purpose. The advantages to be gained by their

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

use in war are so evident and so important that when once perfected they will form just as necessary a part of the defences of a nation as is now furnished by a navy.

Air-ships may be used in war for observation of the enemy, for reconnoissance, for carrying dispatches, and for offensive attack.

Balloons, usually captive, have often been used for observation of the enemy, and they now form part of the equipment of almost all nations. An air-ship, completely under control, would be an ideal means of observation and reconnoissance. It could penetrate far into the enemy's country, and return promptly with intelligence. The most minute information of an enemy's numbers, disposition and movements could be obtained, which from its accuracy would be of incalculable importance to the commander of an army.

The general in command of an army could, from a position on an air-ship, make better disposition of his forces and, having better knowledge of how a battle was going, could meet emergencies more promptly.

For topographical work an air-ship would be a valuable auxiliary. By instantaneous photography of the underlying country, accurate maps could be made and multiplied for circulation.

For carrying messages the air-ship might be useful in the absence or interruption of electrical communication.

The most important field, however, for the operation of the air-ship would be its use in offensive operations. For this purpose it is eminently adapted, and will far surpass any weapon or means of offence that man has heretofore invented. An air-ship could, by rising beyond the range of the enemy's guns, or by moving rapidly in irregular or zig-zag directions, prevent guns being trained and fired upon it, while its own guns would still be effective. The high angle of elevation required to fire at an air-ship would make the artillery of the present day useless, with the exception of mortars. The concentration of mortar fire might be attempted, but only a chance shot, while the air-ship was at a low altitude, could have any effect.

Air-ships will probably be armed with light rapid-fire guns for attack upon other air-ships, and with guns of low power, possibly pneumatic, for firing at objects beneath. In many

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

cases guns could be dispensed with and projectiles of all kinds could simply be dropped. By coming up against the wind and making certain adjustments of the rudders and aëroplanes, the velocity could be diminished, possibly almost to a full stop, without the air-ship falling, and thus give the gunners an opportunity to do more accurate firing. A handful of bullets thrown from the height of a half-mile or so would be very destructive upon reaching the earth. Shell or shrapnel could be used with good effect. The greatest use of the air-ship, however, would be to drop torpedoes containing a high explosive. One torpedo exploded in the vicinity of a man-of-war would annihilate it. The ship would be entirely powerless to protect herself. No matter what her speed, she could not run away or conceal herself in any way, so that the destruction of an entire fleet would be a comparatively short matter. The bombardment of a city or a fort would be much more easily accomplished since the target would be larger and stationary.

An air-ship, then, hovering over the capital of a country would, unless a more powerful similar antagonist were brought against it, soon bring the government to favorable terms.

Land fortifications would be tenable only if provided with proper overhead protection for guns and men, and would be powerless against an air-ship. An army, when a hostile air-ship appeared, would be forced to adopt the most open kind of extended formation, since a closed mass would offer a good target for the aërial gunners.

The ability of an air-ship to hover over and threaten the headquarters of the commander of an army might have a vital effect upon the result of a battle.

The only method of attacking an air-ship that would offer a reasonable hope of success would be by other air-ships. The battle between them would be in some respects similar to one between naval vessels, with the additional features of much higher speed and of its not being confined to one plane. Each would endeavor to cripple the other. Their light construction would allow them to be easily damaged. The sustaining aëroplane destroyed, gravity would do the rest. Ramming would probably be impracticable. In a conflict between an aëroplane and a dirigible balloon, the latter would be at a decided disadvantage.

The possession of an air-ship, or the successful termination of

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

a battle between air-ships, will thus quickly decide a war. We may look forward, then, to shorter wars in the future, and since the conflict of the air-ships will be the decisive factor of a battle, the relative importance of large armies and navies will be diminished. It would be absolutely necessary, therefore, that a nation engaging in war with another nation owning air-ships, should herself possess a sufficient number of them. To be without would be certain defeat, even though her antagonist were a small nation with an insignificant army and navy.

We may say, then, that the invention of a successful air-ship will cause an entire revolution in the art of war more stupendous than that caused by any invention since that of gunpowder, and even surpassing that, since it only increased the distance between the lines of the combatants, while the principles of attack and defence, strategy and supply, remained unchanged, or were only slowly modified. A flying machine, however, will nullify strategy, make vital changes in the principles of attack and defence, diminish the importance of navies and sea-coast fortifications, and by bringing the theatre of operations to the doors of palaces and legislatures, render speedy settlement of national grievances imperative.

JOHN K. CREE.

• PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE CRISIS IN THE EAST.

BY KARL BLIND.

In the midst of the tremendous complication which has so suddenly arisen in the East, the more far-seeing Liberal politicians of Europe anxiously ask themselves: Will the Young Turkish party be able, by a sudden stroke at Constantinople, to work out a reform in the sense of representative government, ere the Empire falls into utter decay?

It is difficult for the best-informed, at this moment, to gauge the strength of that once active progressist party. In France and in Egypt, journals connected with it are published. At Paris, a paper called "The Raiser of the Veil" appears in the Arab language. It is edited by the Emir Ermin Arslan, formerly a high official in the administration of the Lebanon. At Geneva, *Le Croissant* ("The Crescent") is printed under the editorship of Halil Ganem, who in 1876 was a member, for Syria, of the then short-lived Ottoman Parliament.

In London, too, it has been asserted, a Young Turkish organ is published and clandestinely sent to Constantinople. But the most careful inquiry has not enabled me to lay my hands on a copy of it. It needs scarcely be added that the strict supervision of the press in the Ottoman capital, and the severe police regulations existing there, do not render it possible, just now, to bring out opposition journals either in the European or in the Asiatic dominions of the Sultan.

I well remember the Young Turkish paper which was published in London in 1876. Zia Bey and a friend of his were then busily engaged, from the sheltering shores of England, in a literary campaign for the convocation of a parliament. Among the Softas, or theological students of Islam, ideas of reform were rife in those days. The present monarch, Abdul Hamid, had just

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

come to the throne, and his realm was threatened with war by Russia. As the danger of foreign invasion grew more manifest, the new ruler, a man of thirty-four, felt compelled, under insurrectionary pressure from the more enlightened Mohammedan population, to convoke a representative Assembly to his capital, for the first time in the history of the empire.

So Turks and Armenians, Bulgars, Greeks, Albanese, and various other races of different blood and creed, met to frame fundamental institutions for the common country on the lines of popular self-government. The spirit which animated them—though in that first instance a great number were of necessity mere nominees of the Porte—proved to be an excellent and truly progressive one. I have heard this fact borne witness to by trustworthy and impartial men who were present at the debates, full minutes of which I read at the time. The English Ambassador, Sir Henry Layard, a Liberal, recorded his own appreciative testimony not less clearly.

That first Ottoman Parliament, which met after several popular risings at Constantinople, through the exertions of Midhat Pasha, showed remarkable spirit and courage. It passed a number of liberal laws, claimed full control over the exchequer, made a searching investigation into the corrupt administration of court expenses, resisted all proposals tending to curtail the freedom of the press—in short, acted more independently than many a European legislature. Ignorance only, or wilful untruth, can deny these facts. Aye, even the "unspeakable Turk" proved capable of mending his ways.

It is Midhat Pasha's constitution that the Young Turkish party wishes now to be re-introduced. Rumors have reached England that when Kiamil Pasha was recently raised to the vizierate, even some of the more sensible "Old Turks" were open to suggestions for the establishment of parliamentary institutions. Kiamil, it is alleged, had already prepared a communication to the Turkish papers concerning the intention of doing something in that direction; but at the last moment, he had to withdraw this semi-official note. A representation, said to have been made by him to the Sultan, that "henceforth the dominant influence ought to be with the ministers at the Porte rather than at the Palace," was ungraciously received. Immediately afterwards he was deposed and practically exiled.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

All this shows that there are strange possibilities, if not probabilities, under present circumstances—provided there is not a sudden catastrophe of another kind. A secret body of men, calling themselves the "Ottoman Committee of Union and Progress," and kindred groups, are issuing manifestoes for the convocation of a parliament. The 119 articles of the Constitution, published with the Sultan's sign manual on December 23, 1876, in a Turkish and French text, thus acquire a potential importance, although just now nobody can say anything with certainty on a subject presenting so many difficulties. At all events, let us look at the main points of that ground-law of nineteen years ago.

In the place of the despotic sultanate, a constitutional monarchy was to be established. All the populations of the empire, without discrimination of origin or creed, were henceforth regarded as Osmanli, or full citizens. While remaining Protector of the State Religion, the Sultan was to be surrounded by responsible ministers. He only retained the usual privileges of a constitutional ruler in our part of the world. There was to be a Senate and a House of Deputies, with payment of members. The vote at parliamentary elections was to be secret. Every 50,000 male citizens were to elect one member of the House. Every Deputy was held to represent not merely his constituency, but the nation at large. No member could be arrested or prosecuted without the consent of the Chamber.

Freedom of the press, equality before the law, admission of all citizens to State employments, liberty in matters of public instruction for all denominations, obligatory popular instruction, an equal imposition of taxes in accordance with the amount of property, free exercise of every religious cult, abolition of torture and of confiscation of property—such were a few of the general principles of the Constitution.

In Parliament, the initiative in bringing in bills belonged both to ministers and to private members. The budget was to be fixed every year by the House of Commons. In case of an adverse vote, the monarch had to change his Cabinet, or to dissolve Parliament and to order new elections. The House of Commons had the right of bringing ministers to trial before the High Court of Justice. A minister thus charged was in the meantime suspended. Judges were irremovable. The procedures of all tri-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

bunals were public, even as the sittings of the representatives of the people. In the administration of the provinces there was to be decentralization. In the provinces, the districts and the cantons, special councils had to be formed on the elective principle.

Not so bad, after all, for Turkey. There are worse constitutions in more highly cultured countries. What if the Autocrat of all the Russias had been asked to follow such an example? Instead of that, he was urged on by a Liberal Premier of England to march in and attack Turkey, whilst this promising germ of freedom was rising from the ground among what had been called, with a deplorable want of philanthropic sentiment, the "one anti-human specimen of humanity." Strange to say, the signal was given, among English Liberals, for crying down the most laudable aspirations of the Young Turks, and for continuing to invoke the blessings of the Cossack lance upon the wretched Mohammedan. The end was easy to foresee. On the outbreak of that deadly contest, in which the victors committed nameless barbarities—as was afterwards fully described in the chief organ of London Liberalism itself—the first Ottoman Parliament was dissolved, much to the relief of the diplomatists of St. Petersburg.

Those who know the history of the wars waged by Russia against Turkey are well aware that, whenever the latter began some home reform, the Czars, after having denounced her misgovernment, hastened to fall upon her, sword in hand. This policy became a confirmed maxim. It was cynically avowed in a famous dispatch by one of the most eminent diplomatists in the time of Alexander I. and Nicholas—namely, Count Pozzo di Borgo. Speaking of the war of 1828–29, he says that "at first there might have existed some doubts as to the urgency of taking up arms against the Porte," but "when it was seen that the reforms then introduced would have the effect of consolidating the Ottoman Empire," the Russian government could not hesitate any longer in attacking it. Pozzo di Borgo literally goes on:

"The Emperor (Nicholas) has put the Turkish system to the proof, and his Majesty has found it to *possess a commencement of physical and moral organization* which it hitherto had not. If the Sultan has been enabled to offer us a more determined and regular resistance whilst he had scarcely assembled together the elements of his new plan of reform and ameliorations, how

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

formidable should we have found him *had he had time to give it more solidity*, and to render that barrier impenetrable which we find so much difficulty in surmounting, although art has hitherto done so little to assist nature. Things being in this state we must congratulate ourselves upon having attacked them before they became dangerous for us; for delay would only have rendered our relative situation worse, and prepared us greater obstacles than those with which we meet."

This speaks for itself. Perhaps it gives a clue also to the present attitude of the Russian government, as evidenced in the curious letter addressed by its ambassador at Constantinople, Mr. Nelidoff, to the Armenian Patriarch.

The diplomatists of St. Petersburg fear, in fact, nothing more than that the Porte should find itself driven to effect large reforms and be allowed time to accomplish them. They do not recognize the right of Europe to solve the Eastern question by a concert of Powers. They tacitly maintain the traditional claim of Russia to the possession of Constantinople. And they mean always to choose their own time for striking a decisive blow—not in the interest of Europe, but of Russia. Therefore they often follow a zig-zag policy, tacking to and fro; not minding even for a while to abandon the Armenians, although aiming at the conquest of further territory in Asia Minor, where Armenians mostly dwell among Turks, Kurds and other races of the polyglot Ottoman Empire.

Years ago, after the war of France against Germany, and before that of Russia against Turkey, I had occasion to fully discuss these vexed Eastern affairs and Russian policy in Central Asia, with Lord Beaconsfield, then still Mr. Disraeli, for about an hour. He himself had sought the interview on hearing that I was dining in the House of Commons with a friend of his, a Liberal Scottish member, the representative of a great aristocratic family in the North.

Perhaps, before going into details, I may be allowed to state that, for a long time previous—even in the days preceding the Crimean War—I had taken an active part in making larger numbers of men in England acquainted with the designs of Russian Autocracy in the East. At that epoch, the English mind was far more isolated from the currents of Continental thought, far more of the secluded islander's cast, than it is

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

at present. The history of European countries was to most Englishmen a book sealed with seven seals. Muscovite policy, in its more complicated and crafty aspects, was well nigh exclusively dealt with by David Urquhart, who had once filled a post in the English embassy at Constantinople, and by his small but resolute school of adherents. But the eccentricities in which he, despite his undoubted knowledge and merits, too often indulged by way of exaggeration, were only too apt to alienate the somewhat Philistine common sense of the great mass and of practical statesmen.

Having for years made Russian history a special study from the sources, I strongly felt in the early fifties that a new war against Turkey was coming on. Most European nations were lying under the yoke of an absolutistic reaction which had followed the overthrow of the promising Democratic movements of 1848–49. This was the psychological moment selected by Czardom for making a new spring at Constantinople. Under the impression that such an attempt was certain, I wrote in the same Liberal London journal —then very influential among the English masses—in which Urquhart often expounded his views, a long series of historical sketches, entitled, "The Universal Empire of the Cossacks." It gave an account of all the attempts made by Russia upon Constantinople since the foundation of the Empire under Rurik. Incidentally it described the tortuous ways and manners of Muscovite policy. Later on, in the same journal, throughout the Crimean war, and for many years afterwards, there appeared regularly leading articles from my pen on Eastern affairs.

No sooner had some of the historical sketches entitled "The Universal Empire of the Cossacks" appeared, than a former English Ambassador, Lord Ponsonby, wrote a flattering letter to the Editor, inquiring after the author's name. David Urquhart did the same through his confidant, Major Roland, asking for a personal interview with the writer. Having, however, been but a short time in London as an exile, and thinking that, if the authorship were boasted about, some native prejudice against "foreign influence" might be raised by those who, like Cobden and Bright, were averse to England's participation in any Continental war, I resolved upon preserving anonymity.

I only mention those details to show that the questions now again at issue had occupied me for a good while past before meet-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ing Mr. Disraeli. I will add that when the Crimean war came, the chief proscribed leaders of Democracy, Mazzini, Ledru-Rollin, Kossuth, and others, gave forth no uncertain sound in favor of armed European opposition to the dangerous designs of Russia.

Now, in the ample conversation I had years afterwards in presence of Sir Tollemache Sinclair, the Liberal Scottish member, with the famed Tory leader, I confess I was astonished to find that even then the latter, did not at all seem to be properly aware of the connection of the various Panslavistic movements in Austria-Hungary and Turkey with Russian agencies. As I endeavored to explain the ramifications of those movements, some of which were carried on under pseudo-democratic disguise, he listened with manifestly eager attention. I showed how real race-yearnings were mixed up with the crafty scheming of men who simply worked for Russian universal dominion. Mr. Disraeli, whom everything passing in the democratic camp naturally interested, as he had himself begun as a Radical, was quite astounded when he heard what Alexander Herzen, whom I have intimately known, and who is generally regarded as a firm representative of the cause of freedom, had written on the subject of Panslavism or rather Pan-Russianism.

Herzen did not scruple to indulge in mocking phrases about what he called the "corrupt blood of the Germano-Romanic world," which, he said, "must be reinvigorated by the young barbarian world of Russia!" All Europe, not Turkey alone, was to him a "sick man" whom it would be best to "take by the throat and finish off." Russia was to be the heir of that sick man. Putting forward a Russian peasant of his own invention, Herzen made that poor, benighted personage, who certainly is not strong in political geography, revolve the question in his mind whether Vienna (!), St. Petersburg, Warsaw, Kieff, or Moscow should be the Russian capital of the future. Finally, he made him decide for "Constantinople as the capital of the United Slavo-Greeks."

Though Mr. Disraeli spoke very cautiously on Turkish and Hungarian affairs, a considerable agreement of views appeared to come out in the course of our conversation. "Certainly," he said, "it would be a great misfortune if the Panslavist movement were to shake Austria deeply. She is our old ally!"

I replied: "A strong Germany, in alliance with Austria-Hungary, could only be welcome to England. Intelligent Liberals,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Democrats and Conservatives should seek to prevent a premature collapse of Turkey, as long as the overgrown Empire of the Czar stands there in threatening form, and the dividing wall of Poland is not restored." This was said about six years or so before the formation of the alliance between the German Empire and Austria-Hungary, which, by the later accession of Italy, became the Triple Alliance.

When we approached the Central Asian question a divergence of opinion at once came out. "The Russians," observed the Tory leader, "have now enough on their hands in Central Asia. And, after all, I do not think there is any cause for complaint or alarm in that direction."

"You will pardon me," I answered, "when I say that I have never been able to understand how quietly England, upon the whole, nay, with what surprising assent not a few men here have regarded this pushing forward of Russia through Independent Tartary. After all, her final aim is India!"

Mr. Disraeli quickly felt the sting of these words. Contrary to his custom of sitting with a curious immobility of body and face, he moved about a little with apparent uneasiness. Then he said: "It is, however, still a very long way from the Russian to the Indian frontier!"

I will not go into further details beyond mentioning that I sought to show what perils were created for English rule in Southern Asia by this constantly nearer approach of Russian power to Afghanistan, and how England, in proportion to this closer approach, became more and more incapacitated for an effective defence against a fresh Russian assault in the direction of Constantinople. Such a renewed war I thought was not far off. It came, indeed, a few years after this conversation.

Mr. Disraeli, who had received us in the most graceful manner, accompanied us to the door with kind words and thanks to me.

In public, as is well known, his attitude was generally a sarcastic one, with a strong touch of cynicism. In Parliament, he usually sat with the aspect almost of an Egyptian idol, not moving a muscle, whilst attacks came down upon him like a hailstorm. But all that he said on this occasion was uttered in so agreeable and obliging a manner that the impression created was an entirely different one. His utterances were quiet, measured, dignified,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

yet withal warm. No ambiguous remark came from his lips. He also confirmed, with evident frankness, what Sir Tollemache Sinclair had reminded me of, before we saw him—namely, that in 1870 he "had looked upon the attack of France against Germany as a great and grievous wrong." On this point we were all agreed.

Tories are generally, though rather erroneously, regarded as having always been identified with the idea of resistance against Russia. Yet, from the days of the Duke of Wellington, not a few eminent English Conservatives might be quoted as proofs of a want of foresight, especially in regard to the ulterior aims of Russia. I was, therefore, doubly curious to see how the Tory leader with whom I had discussed these matters, would act in 1876–77.

He certainly opposed Russian designs when Constantinople was finally imperilled. I believe he would have acted still more strongly had he not been hampered in his own Cabinet by Lord Derby, the Foreign Secretary, who, after having done his best to shield Russia against threatened hostilities, at last left the Ministry. Here it should be brought to recollection that Disraeli had, in his earlier parliamentary life, been efficiently patronized by the father of Lord Derby. It was at a time when narrow prejudices of the squirearchy against the "Jewish adventurer" seemed to be an insurmountable bar to his political career. Owing to this circumstance, Disraeli, as Premier, was unwilling to rid himself of his Foreign Secretary. And thus the action of England was hampered.

But even in 1876 Disraeli still labored under the delusion that he could draw off Russia from her intended prey in Europe by showing her the way to further Asiatic conquests. Whilst exerting himself to stop the Czar from seizing Constantinople, the Conservative Premier exclaimed in the House of Commons: "I am not one of that school which views the advances of Russia in Asia with deep misgivings. I think that Asia is large enough for the destinies of both Russia and England." And again: "Far from looking forward with alarm to the development of Russia in Central Asia, I see no reason why they should not conquer Tartary any more than why England should not have conquered India."

These are the words which Lord Salisbury recently, at the Lord

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Mayor's banquet, called "the great words of Lord Beaconsfield," making them his own parole. But it was Lord Salisbury also who once had said that those who are alarmed at the advance of Russia in Central Asia, had best buy maps on a very large scale, in order to see how far the distance is still to India. Since that remarkable observation, Russia has pushed her frontier up to, nay, even into, the outlying bulwark of India—that is, Afghanistan—and, moreover, has crept upon the Roof of the World, coming at the English even from the other side. Here I may record what an Afghan prince, Iskander Khan, who has served in the Russian army, once said to me. "Our rocky country," he declared, "serves as a protecting bastion to English dominion in India. We are well placed by nature in our stronghold, and we are warlike in a high degree. But we are much divided amongst ourselves as tribes and by feuds. If once the Russians should succeed in lodging themselves there, it will be utterly impossible to dislodge them again."

Let me add that all the historical invasions of India—barring the gradual formation of English rule there—have passed by way of Afghanistan!

I believe if Lord Beaconsfield were alive to-day, he, too, would look with dismay upon the rapid advance of Russia right through Central Asia into the very bulwark which lies before India. Nor would he have enjoyed the spectacle of an English general, arriving as a plenipotentiary for the regulation of the Afghan frontier in concert with Russian delegates, being ignominiously put to flight by a Cossack troop—an insult and a breach of international law which a Liberal Premier quietly allowed to pass unavenged.

Yet the government of St. Petersburg had successively given the most definite promises to the English government that neither Khiva, nor Merv, nor Sarakhs would be annexed, and that "His Imperial Majesty the Emperor looks upon Afghanistan as completely outside the sphere within which Russia may be called upon to exercise her influence"; also, "that no intervention or interference whatever, opposed to the independence of that state, enters into His Majesty's calculations." Once such a promise was given through Count Schouvaloff to Queen Victoria in person, "on the word of honor of a gentleman," by Alexander II. The result we all know.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Extraordinary as it may sound, the real objects of Muscovite policy have been far better understood, for a long time past, by the leaders of public opinion, nay, by large masses of ordinarily intelligent men, abroad, than by not a few of the foremost statesmen in the country most nearly concerned in that matter. On this subject Count Cavour and Mazzini, otherwise politically estranged, were of the same view. Both held that if Russia were allowed free egress for its naval and military power into the Mediterranean, and Constantinople were to fall into her hands, the danger to Italy and to Europe at large would be enormous. They thought it would be the first step to the world-dominion of Czardom. After all, this was the idea also of Napoleon I., who may be considered an expert on such a subject.

Since the present crisis began, there have been all kinds of extraordinary proposals—some of them of old date, but newly furbished up; others, quite new and eccentric, such as the plan of a "Partition of Turkey" between Russia, France, Austria-Hungary, England, Italy, Bulgaria, Servia, and Greece. The author of that last scheme is a member of the English House of Commons, who is at the head of the Anglo-American Committee, and who has introduced an Armenian deputation at Hawarden.

The opening of the Dardanelles and the Bosphorus to the men-of-war of all nations is one of the old projects recently broached again. On that subject Sir M. Grant Duff, once a Liberal Under-Secretary of State of India, and ex-Governor of Madras, and one of the few who understand foreign affairs thoroughly, wrote some years back:

"The provisions of the Treaty of Paris in that behalf apply not to Russia only, but to all the world. Supposing Piccadilly (the well-known London street) were a strait of the sea, miles and miles in length, from either side of which London rose on a gradual slope, so that a fleet steaming leisurely through it could blow the whole city to pieces, would it be endurable that all the fleets of the world should sail up and down it at their own sweet will? And if not all the fleets of the world, why particularly the one fleet which is far the most dangerous? Supposing Constantinople ever became Russian, does the newest school of Russophiles really believe that Russia would allow armed vessels to pass between Stamboul and Scutari? . . . Surely, under no circumstances, as long as a great city and its suburbs extend from the Sea of

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Marmora almost to the Symplegades, could you allow the Bosphorus to be treated as if it were the Straits of Dover."

Not less forcibly did Sir Algernon Borthwick, a Conservative, once speak on that subject at a great public meeting. He pointed out that the passage through the Bosphorus and the Dardanelles is free to the commerce of the world. But if Russia, he said, had unhindered ingress and egress for her warships, "she could to-morrow send her Baltic fleet into the Black Sea. Her object in asking for this free passage is to obtain the mastery of those waters and the control of the Turkish capita.. . . . The power of Russia would be so great that we should have to maintain large fleets to counterbalance it. We should have to maintain a Black Sea fleet as well as a Mediterranean squadron; and this measure, which is falsely represented to be one of peace, would add immensely to the burdens of the English taxpayer and the political dangers of Europe."

In the present disturbed and most grave conditions of affairs, the various great powers have asked for an additional gunboat of each of them being allowed to enter the Straits. Their demand, after some delay, has been granted. The principle enunciated by the Treaty of Paris, and so ably explained by Sir Grant Duff and Sir Algernon Borthwick (now Lord Glenesk), remains unaffected thereby. It is a rule necessitated by the natural configuration of Constantinople and of the Straits.

As to the plan of a partition of Turkey, all I can say is, that its unwisdom is too patent to require special discussion. If it were carried out, it would simply form the preface to a future general war between the powers concerned. Under these circumstances, one would fain hope against hope that an internal reform of the Ottoman Empire—such as was begun, but unfortunately too quickly crushed, or placed into abeyance—in the days of the Parliament of 1876, were once more attempted at the eleventh hour. If this is not done, the prospects are dark indeed, and Europe may expect a continued era of an ever increasing militarism and a future universal war more terrible than any recorded in the darkest pages of history.

KARL BLIND.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

CENTRAL AMERICA AND ITS RESOURCES.

BY AUDLEY GOSLING, BRITISH MINISTER TO CENTRAL AMERICA.

VERY little is known of the pre-historic conditions of the "Land of the Quetzal," beyond the fact that its primitive dwellers were nomad Indians, probably, but not certainly, of Asiatic origin; and it is perhaps mainly due to recent archæological researches, conducted with so much patience and ability by Mr. Alfred Mandeslay in Yucatan and Northeastern Guatemala, that a discovery of much interest has been made, pointing to the conclusion that the aborigines boasted of a civilization superior and anterior to that of the Aztecs of Montezuma's day. The country, discovered by Columbus in 1502, was fifteen years later made a captaincy-general by Charles I., and up to the year 1821, when the Spanish dominion was overthrown, proved one of the richest appanages of the crown of Spain. Between 1821 and 1839, the five states formed a confederation, which was dissolved in the latter year.

To the general reader few countries are so completely *terra incognita* as Central America, comprising the Republics of Costa Rica, Guatemala, Honduras, Nicaragua and El Salvador, whose total area is about 175,000 English square miles: the largest, and most sparsely populated, Nicaragua, containing 49,500 and El Salvador, the smallest, 7,225. The several populations, of which forty per cent. are Indians, are as follows: Costa Rica 250,000, Guatemala 1,500,000, Honduras 420,000, Nicaragua 310,000 and El Salvador 670,000, making a total of 3,150,000. El Salvador is the most populous, counting 89 inhabitants to the square mile. These countries, situate between 8° and 21° 30′ N. and 77° and 94° W., include Yucatan and the Mosquito Reserve. Geographically, both British Honduras to the north and the State of Pan-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ama, south of Costa Rica, extending southwards to the Isthmus of Panama, form part of Central America; and should the union of the five Republics be consummated, efforts would probably be made to acquire from Colombia the State of Panama, or a portion of it. Central American Union is to-day occupying the attention of certain of the states, especially Guatemala, Honduras and Nicaragua, and were the opposition to the scheme which has always been offered by Costa Rica withdrawn, its realization might be hastened.

When completed the Inter-Oceanic Railway, "*Ferro-Carril al Norte,*" in course of construction across Guatemala, of which upwards of seventy miles are now open to traffic, to connect San José, the Pacific port of that Republic and Puerto Barrios on the Atlantic (which will bring Guatemala City within five days of New York), and should the Nicaragua Canal and various other contemplated means of internal communication be carried out, a great influx of foreigners, chiefly Americans and Germans, will probably follow, whose influence and example will hardly fail to promote the development and material advancement of these countries so lavishly endowed by nature. Guatemala City, situated amidst grand surroundings at an altitude of over 5,000 feet above sea level, will certainly become a favorite winter residence for Americans who now seek sunshine in the islands of the Greater and Lesser Antilles. Its climate may be described as that of perennial spring and during the warmest months, March, April and May, the shade temperature seldom reaches 75° Fahrenheit, and the nights are always cool, necessitating the same bed covering as would be used in spring in either London or New York. There is, perhaps, no more beautiful site in the New World for a capital than Guatemala City, but before it can lay claim to become a health-resort—which it could assuredly do—an improved system of drainage and a supply of pure water must be introduced; still even in its present state it is far from unhealthy. The population may be put down at 70,000, and there is ample space and facilities for one ten times its size. The mail and telegraph services throughout the Republic are admirably administered: postal matter, although carried by mule trains from the capital to Port Livingston on the Atlantic, a journey of six days, reaches New York in eleven days; commercial and general news from Europe and the United States is regularly re-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ceived and published the same day by the Central and South American Telegraph Company, via Galveston and Salina Cruz in Mexico. The city boasts of excellent markets, better furnished than many of those in the principal towns of Spain; the stores, too, are well supplied, and hotel accommodation, though hardly adequate for existing requirements, is fairly good. As is the case in the other Central-American capitals, Guatemala is an expensive place of residence, more so on the whole than New York or Paris, nor can it be said that one gets one's money's worth.

The Constitutions of these Republics are nearly analogous, and are modelled much after that of the United States. The President, elected for six years, represents the executive power, while the Legislature is vested in a National Assembly, whose members, elected by universal suffrage, sit for four years. The form of government is "Constitutional and Democratic." The Ministers hold the portfolios of Foreign Affairs, War, Finance and Public Credit, Justice, Public Works and Public Instruction. Under General Ruffino Barrios, the uncle of the present President, popular education made considerable strides, and there are now no less than 14,000 educational establishments, public and private, in Guatemala, counting an aggregate of 150,000 pupils of both sexes. Throughout Central America instruction is free and compulsory.

During the past fifteen years a large foreign population has settled in these countries, principally Americans, Germans, Italians and Swiss, drawn thither by the high prices commanded, by what is commonly called "Costa Rica," under which denomination all the varieties of coffee grown in Central America are known to the consumer. Fortunes in this branch of agriculture have been rapidly made, owing to the extraordinary rise in prices, which have steadily advanced from $8 to $28 and upwards per quintal ($1 currency equal to about 50 cents gold); and until internal peace is restored in the Brazils there does not appear any likelihood of a fall in coffee prices. To give some idea of the national wealth of Central America, it may be said that the value of the exports and imports of the five States amounted last year approximately to £6,000,000, the lion's share, about £2,500,000, falling to Guatemala, whose export and import duties alone for the month of January of the current year amounted in round

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

numbers to £100,000. Coffee culture, which was introduced into Central America by the Jesuit Fathers in the year 1770, and was entirely unknown there prior to that date, has now assumed extraordinary proportions, especially in Guatemala, Costa Rica and El Salvador, where the population is denser and means of communication better and more general than in the sister Republics. It is estimated that this year's coffee crop in Guatemala, which forms nine-tenths of its total exports, will reach fully 57,000,000 pounds, valued approximately at £3,000,000. The finest brands are shipped to Hamburg, London, Havre and Cherbourg, the inferior qualities finding a ready market in the United States. The three model "*Fincas*"—coffee plantations—in Central America, are said to be "La Libertad" and "Mercedes," in Guatemala, belonging respectively to General Barrillas, late President of that Republic, and Messrs. Hockmeyer, Germans, and that belonging to the Messrs. Vaughan, Englishmen, near the City of Granada, Nicaragua. With regard to the latter State, should the contemplated canal and the Inter-Oceanic Railway, connecting its Pacific and Atlantic coasts, be carried out, Nicaragua will offer a wide field to foreign enterprise, not only on account of its agricultural resources, which are but little developed, but in view of its great mineral wealth. It was recently said by an English mining expert of long practical experience, "that the day was not distant when Nicaragua would astonish the mining world as a great gold-producing country." In this, as in the other Republics, Costa Rica and El Salvador excepted, the great drawback to agriculture and to industries in general is the lack of sufficient labor; but this difficulty is in no wise insurmountable, as has been proved quite recently in Guatemala, where Japanese labor has been successfully introduced. A few years ago some hundreds of Gilbert Islanders with their families were imported with only partial success, as neither the local conditions nor climate appeared to agree with them, and the death rate among them was very heavy. In Costa Rica, West Indian negroes have for many years past shown themselves to be admirably adapted for field labor, but they are mostly confined to that Republic.

The soil throughout Central America is wonderfully rich, and produces to perfection nearly all the cereals and plants of commercial value known to the New and Old Worlds. Wheat, barley,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

oats, maize and European vegetables of every variety grow luxuriantly in the temperate and colder zones; whilst from three thousand feet altitude down to the coast line, indigo, cotton, sugar, cocoa, rice, cochineal, coffee, tobacco, mastic, balsams, tamarinds, peppers, ginger, vanilla, pine-apples, dragons blood, cassia, sarsaparilla and india rubber thrive abundantly. The orange and lemon, exotics introduced by the Spaniards, especially the former, attain to extraordinary excellence, and were care bestowed upon their cultivation, considerable and very lucrative business could be done in this branch of agriculture. The *Palma Christi* (castor-oil tree), indigenous to Central America, grows wild throughout the country, and in such extraordinary quantity that its oil might be successfully extracted at a cost which would admit of its use for ordinary lubricating purposes. The forests, many of which are primeval, abound in woods of great hardness and exquisite beauty, and include mahogany, cedar, logwood and various other dye-woods.

Of minerals, gold, silver, copper, iron, lead, zinc and other ores are plentiful, and if mining ventures in certain of the Central American States have not as a rule proved remunerative, failure is to be attributed to mismanagement, and, in many cases, to a lack of honesty on the part of the promoters.

The chief exports include coffee, cocoa, indigo, cochineal, sarsaparilla, balsams, mahogany, cedar, dye-woods, hides, tortoise shell, cattle and bullion. The principal imports are cotton, linen, dry goods of all classes, silk fabrics, hardware, cutlery, glass, china, stoneware, jewellery, wine, spirits, beer, mineral and vegetable oils and canned provisions.

The writer of these fragmentary jottings who has travelled much in Central America, strongly recommends to his readers a visit to the beautiful and interesting countries comprised under that name. From New York the journey can be made by way of San Francisco and thence by Pacific Mail steamer to the several ports of call, whence by railway or on mule-back, amid glorious scenery, the capitals can be reached without much difficulty: or another route is from New York by steamer to Colon, and from Panama up the coast by steamer. From Europe the best and most expeditious route is from Southampton by Royal Mail steamer to Colon. In either case the voyage to San José de Guatemala occupies about twenty-four days. The

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

grand physical beauties of Central America, the richness and variety of its flora and fauna will well repay the traveller for the monotony of the sea voyage, which in nine cases out of ten is attended with smooth seas and the cloudless skies of the tropics. Nowhere on this planet, the island of Java, perhaps, excepted, are volcanoes so numerous and of such varied and eccentric conformation as in Guatemala. The most notable are "Agua" and "Fuego," respectively 13,000 and 12,000 feet in height; during last century the former vomited forth volumes of aqueous matter, beneath which lies buried the old Spanish City of "Ciudad Vieja." "Guatemala la Antigua," the former capital and seat of government under a Spanish viceroy, with its hundreds of fine churches and religious establishments, was upwards of a hundred years ago totally destroyed by earthquakes caused by the sudden and terrible activity of "Fuego." Of recent years seismic disturbance has been of such rare occurrence in Guatemala that houses of two and three stories have replaced the low and substantial structures of former times built to withstand the much dreaded violence of the *tierra mota*. In the Republic of El Salvador a volcano of recent formation, named Izalco, by whose agency the capital, San Salvador, was nearly destroyed in 1873, serves the useful purpose of a beacon for this iron-bound coast on the Pacific. Towards the end of last century the site on which it is situated was a fertile knoll where the Indians cultivated their corn and where the frequent destruction of their crops by fire was attributed to acts of vengeance by neighboring tribes, giving rise to many a free fight in which that deadly weapon, the "*Machete*" played a prominent part; nor was it until a gradual upheaval of the soil was observed, that it occurred to anyone that these supposed acts of incendiarism were due to subterraneous ignition. Izalco has now attained an altitude of some 5,000 feet and coasting navigators watch its rapid growth from year to year. Its nocturnal ebullitions form a spectacle of more imposing grandeur than the eruptions of Vesuvius; explosions occur every twelve or fifteen minutes day and night with extraordinary regularity, accompanied by noises likened to the discharge of heavy artillery, followed by the escape of volumes of dense smoke and flame carrying with it hundreds of tons of rock and lava, which on a dark night presents a most weird appearance.

The face of the whole of Central America is intersected with

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ravines, locally called "*barrancas*," of great depth, whose creation must have been the result of some terrific natural convulsion hundreds or thousands of years ago, by which the very strata of the rocks was twisted and displaced. Cities surrounded by these barrancas enjoy a singular immunity from the consequences of earthquakes to which they offer an effective impediment. Similar chasms occur from Mexico City southwards, but nowhere are they of such grand proportions as at and around the Guatemalan capital. Taken as a whole, Central America offers a fair field for foreign enterprise. By young men of self-denying and sober habits, possessing a capital of from $5,000 and a tolerable knowledge of the Spanish language, success either in commerce, agriculture or mining, may be confidently counted upon, but they must avoid all interference in local politics. In these as in all other countries, the foreigner whose character and mode of life command respect will very seldom, if ever, suffer molestation at the hands of the authorities.

The Nicaragua Canal, if once commenced in earnest, will open up the almost inexhaustible resources of that Republic, and the engineering works alone will offer lucrative employment to thousands of foreigners. Its physical difficulties are insignificant compared with those which Lesseps never overcame on the Isthmus of Panama; and perhaps the greatest obstacle to contend with is the silting of the alluvial deposits at the mouth of the San Juan River, the Atlantic entrance to the canal. Its whole length will be 194 English miles, 110 of which are included in the great lake of Nicaragua, 134 feet above sea level, whose total superficial area is 3,668 English square miles. A short cutting will connect this lake with that of Managua, 156 feet above sea level, with a superficial area of 600 English square miles, being fifty miles long by twenty-five miles broad, with an average depth of five fathoms.

AUDLEY GOSLING.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

A STUDY IN HUSBANDS.

BY MARION HARLAND, MRS. BURTON HARRISON, AND ELIZABETH BISLAND.

I.

THE feminine reader of the symposium entitled, "*A Study in Wives,*" at once seizes upon and is complacent over a feature that may escape the average reader of the other sex.

French, English, German, and Scandinavian writers give us therein a composite photograph of the Ideal Wife, in which the helpmeet of man shows clear and benign.

The Frenchwoman's "constant aim is to be interesting to her husband. She multiplies herself. In turn, she is his friend, his confidante, his partner in business, his chum." The English cotter's wife has "profoundest faith" in her "man," and sinks her own soul out of sight while toiling for him and the children she has borne unto him. The middle-class Briton's spouse is an indispensable appanage of his respectability. The German woman of mediæval, and of modern, times is typified in the pretty tale told by Bürger, and borrowed by Addison's *Spectator,* of the Weinsberg wives bearing their husbands upon their backs out of the surrendered city as "what was most precious to them." The fairest of the fair pictures sketched in the pleasing "Study" is that of the "beautiful personality" selected by the late Professor Boyesen as the representative matron of his beloved land. Hers was, we read, "an unfailing helpfulness which ever gave and gave, without thought of demanding anything in return." A part of this giving was the sympathetic hearkening to her lord's grumbling over family expenses, calming his irritability, and shielding their children from his censure.

This helpmeetness is the *motif* of the series of Ideals. By

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

frank recognition of man's dependence upon it for happiness and prosperity, the distinguished men to whom we owe the Study prove themselves both shrewd and generous. The Complemental Theory of the Sexes would seem to be held by them in sincerity of orthodoxy. We have no talk of substance and shadow. The boulder and moss, the oak and the vine, are not so much as hinted at. The *fin de siècle* sentimentalist has learned that moss does not comfort boulders, and that the clinging parasite saps the strength of the tree.

We have, therefore, no ground for complaint against tone or tenet of "*A Study in Wives.*" If he who makes two blades of grass grow where but one grew before is a benefactor to the world, she who makes one good man better, one strong man stronger, serves her age well and should be thankful.

At a political dinner given in the South a little while ago, the regulation toast to women had a novel wording:

"The Ladies! God bless them! *Formerly our superiors—now our equals!*"

The caustic irony of the sentiment is subtle, yet we catch the undertone of a great truth. Acceptance of the "situation" may not be cordial, but acknowledgment of the equality for which battle has been done these many years is welcome, both to the radical and to the conservative wings of the Woman's Progress Party. The best and most sensible women in this and in other countries ask for nothing higher than to be rated as the peers of the best and most sensible men. He who admits his wife, *in very truth*, to this equal footing, has taken the first and most important degree in the School for Ideal Husbands. I give significant emphasis to the words "in very truth." If, in bygone days, women's aims were low, their thoughts and ways frivolous, the vapid flattery of their "superiority" to their brothers had much to do with their contentment with actual inferiority to nobler and possible ideals.

A French *feuilletoniste* has written a sensational story of a wife who, grown weary of devotion she did not return, sang her husband to sleep, then heaped his couch and filled his room with his favorite hyacinths. The heavy odor of the flowers stupefied him into torpor from which he never awoke. Reverse the sexes, and we have a parable that needs no key. When the asphyxia is voluntary, and both parties to the contract of marriage are

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

victims, we have an illustration of Max O'Rell's witty fling at "couples who had been engaged for ten years and were still hoping to know something of one another." Cases are rare in which a bachelor, however practical, sets a correct estimate upon the woman he means to make his wife. The clarified vision that enables him to take a just account of stock presupposes the marriage ceremony.

He who brings his imagination down (or up) to the contemplation of his idol (which is "short" for ideal), as a partner, with equal rights, in the concern which we name "life," a co-laborer whose "counsels"—to quote at second-hand from Tacitus—"are not to remain disregarded, nor her utterances undervalued"—so simplifies the marriage relation and strengthens the marriage bond that he may be reckoned an authority in causes hymeneal.

The recognized and established equality of husband and wife outdoes Prince Ahmed's pavilion in elasticity. In the shelter of the spreading wings the phrase that grates upon a just ear—"a kind husband"—is obsolete. A man may be kind to his dog, his horse, his groom, and to his poorer neighbor. If deficient in natural affection, he may even be a kind father. He can no more, in the ideal, that is, the true, marriage, be kind to his wife than the left lobe of the heart can patronize the right. Neither can he, although liberal-minded to a fault, be generous to one who is part and equal owner in all that he possesses.

Should he find fault with her, it is as he would censure his own words and actions. A fair index of healthful spiritual and mental growth is the divine self-dissatisfaction of the earnest soul. The Ideal Husband is not content to rise without taking all of himself with him. If love leads him to make the best of his wife, a sense of what is due to himself and consequently to her, urges him to help her to live up to this high standard.

I have known many women who educated their husbands, in the true sense of the *educere,* drawing out latent good and developing the finer qualities of mind and soul. I have known few men who had patience and faith enough to do more than accept their wives as they are, settling down into fatalistic resignation when judicial weighing finds them wanting. These things are so patent that the adage, "A man's wife makes or mars him," has no companion saw touching the training the wife gets from

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the husband. David Copperfield is slow to learn that his Dora's education was finished before he married her. When the conviction gets hold of him he lets go with both hands the work of training her mind. When she pleads timidly to be allowed to hold his pens while he writes what is to make him famous, he sees nothing promising in the request, or in the wistful eyes that watch the flight of the quill over the paper.

Our Ideal Husband is quick to see, and tactful in following up opportunities to comfort and to uplift her whose more delicate physical organization must often place her at a seeming disadvantage. Lapses into irritability or depression, errors of judgment and taste, are not, in his sight, evidence that his marriage was a failure, or even a mistake. Like the brave, level-headed fellow he is, he reasons that the woman for whom he would have laid down his life in 1885, must be worth living for, and living with in 1895. At the worst—when the worst cannot be ignored—since the bond uniting them is a sacred obligation and for a lifetime, he can set his wits to work to see the lights of the picture and close his eyes to the shadows, or manfully endure the inevitable as he would bear any other incurable ill.

This is conjugal fidelity of the finest type. It should be needless in a Christian land to specify, as an essential qualification for the rôle of the *decent* husband, faithfulness to the letter of constancy to his espoused wife. To the believer in the absoluteness of the holiest of voluntary earthly relations, infidelity is practically impossible.

Flirtations many and easily-gained divorces have deadened popular conscience on this head. Insidious philosophizing upon spiritual affinities and the divine right of every heart to seek and claim the mate intended for it by heaven, have wrought wider evil by compounding a false conscience and passing it off for truth and right. "Who is to judge as to whom God hath joined together?" is the excuse for fickleness that few are honest enough to characterize justly. The man who is true to his higher nature sweeps these sophistries aside and sets steadfastly before him the fact that the woman he has sworn to love, honor, and cherish, is the one to whom belongs, while they both live, the first place in his affections.

The sentence is humdrum and commonplace beside the literature most affected by the sociologist of our day. It is, neverthe-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

less, God's truth, and the principle it conveys lies at the base of, and informs wedded happiness. It is not true, as men (and women) of easy virtue affirm, that the wife who is kept in ignorance of her husband's infidelities, slight or flagrant, is none the worse for them. The purity and strength of the conjugal relation are impaired, however ingenious the concealment, and the injury done to the man's inner nature is incalculable. He who spake as never man spake condemned the unlawful desire of the eye and the heart in terms the erotic novelist would brand as coarse, and at which the neurotic essayist sneers as out-of-date asceticism.

Return to first principles of this stamp would be wholesome frost to social microbes and sentimental bacilli. The breach of a voluntary promise sworn to in God's name is perjury. The betrayal of a sacred trust is treachery. To take all and to give nothing in return is dishonesty. And our Ideal Husband is an honest and an honorable man.

In the details of every-day life, he is *reasonable*. It is easier to grumble at ever-increasing expenses than to shoulder cheerfully the heavier load consequent upon a growing family. When "Finn's low averages and Bertha's hoydenish behavior" (*vide* Professor Boyesen) wound paternal pride, and "Olaf's habit of tearing his clothes" pulls upon the paternal purse, it is clear to the masculine mind that somebody ought to be blamed. Upon the wife, as the motive power of the domestic machinery, is laid the onus of the cook's wastefulness, the chambermaid's impertinence, the butler's breakages. Women are so used to this vicarious chastisement that they flay their own consciences in good faith for the misdoings of their underlings. The housemother holds herself individually accountable for every spoiled *entrée;* dusty corners are as the blot of crime upon her soul, and she repents in her prayers of her children's naughtiness as the direct result of maternal unfaithfulness.

When our reasonable man takes upon himself the blame of his clerk's negligence and his cashier's defalcation and his porter's drunkenness, then, and not until then, will he lay upon his wife's shoulders and heart the weight of another's sins and shortcomings.

The Ideal Husband, thus roughly outlined, is not an impossible He. Nor is the lantern of Diogenes, with a searchlight attach-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ment, needed to find him. He reigns as one of the allied sovereigns, in many an American home, the Abou Ben Adhem of the fireside who makes the millennium of love, peace, and justice a blessed probability. MARION HARLAND.

II.

RECENTLY—since the fair American, upon her travels abroad, who smilingly confesses to the possession, at her home across the sea, of a congenial and attached husband, has become so common a feature of foreign society—the question continually recurs there, as to what manner of man is he who thus calmly submits to be forsaken by his helpmeet. The Frenchwoman, who still appears in public arm-in-arm with her spouse, lifts her mobile eyebrows in astonishment at the liberty conceded to a wandering wife. The Englishwoman, who expects to go abroad in company with her husband, or else to remain at home with him, is lost in a maze of speculation as to the true nature of the matrimonial tie in that wonderful young country oversea. It is said that the gracious lady who fills the throne and the hearts of Italy, has made open protest against the repeated presentation at her court of married American women whose husbands remain invisible. Indeed, in all old world society, like remonstrances are heard. "We see so much of your charming American women, and so little of your men," is a common remark, frequently followed by the suggestion that the nebulous heads of these ambulant households must be either unpresentable, or lazy, or indifferent, or at least indulgent beyond a continental or insular imagination elsewhere. The American husband is considered in short, where the conventionalities of society have been longer established, either a myth or a miracle.

It would be a hopeless endeavor to try to pursuade such critics to accept things American exactly as they are. They are not much moved when we patiently and persistently reiterate that the riddle is often solved by the fact that, in his brief holiday abroad, the Amercian husband of the cultured class, chooses rather to avoid the people and functions of high society in which his wife has pleasure, in favor of such joys of travel as will refresh him bodily and mentally for months to follow; and that, his own vacation over, he returns to his desk in office or counting-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

room generously glad to accord to his wife and family a longer experience in rest and recreation than he was able to permit himself.

Although this magnanimous being is hardly understood among the people of civilizations older than our own, he exists here; and to him is largely due the present efflorescence of American womanhood in the world's flower-gardens. But the motives that inspire him are not all the same. Every good American who creates for himself a family, is anxious to secure for its members the full measure of privileges attainable through whatever means he has, applied according to his understanding how to dispense them. And it is not difficult to convince him that, unless he wishes his wife and daughters to be surpassed in culture and in knowledge of the world by those of his neighbor or ally in affairs, he must at once put to their credit money for a long stay abroad. Then ensues the disruption of the body domestic so peculiar to our occidental households. It would be a captious commentator upon American characteristics who could suggest that separations of this nature are occasionally tempered to the forsaken one by a sense of relief. Let us rather imagine his hope of reunion blending with the trust that when "she" next comes home to her own country, she may possibly be satisfied to stay here.

A trait peculiar to the American husband that surely entitles him to a niche in the temple of ideality, is his heroic endurance of the summer break in the comfort of his home. When June comes, when torrid heat beats upon city pavements and even night's arrival long delayed does not suffice to quell the baking earth, our well-to-do man of affairs speeds the departure of his wife and family to some cool and covetable retreat, there to remain until Autumn makes town again tolerable in their eyes. For three months or more, it may be his lot to remain, when at home, in a howling waste of mosquito gauze and brown hollands, perfumed with anti-moth paper, in a habitation presided over by a grim and furtive care-taker, who views even the master's approach to his domicile with suspicion. During this ordeal his meals at a club or hotel may become a weariness to the soul; his favorite chairs and lamps and books may be inaccessible; his wardrobe may know scant care. Such a trial, to flesh and temper, is made light of by a bachelor fortified with youth and

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

an unsettled habit; but it is serious to the man of middle life who has known better days. The occasion for it—the tax put upon the health of women and children by the prolonged heat of our summers—might be ignored by one less habitually considerate and unselfish than the American husband. But this yearly hegira from town homes to the country is cheerfully submitted to by thousands pent in cities where affairs of toil confine them, who provide for their families delightful, luxurious, or at least comfortable resorts in the mountains or at the sea shore, in which they themselves can hope to share but rarely and for only short experiences.

One is inclined to think it is the habit of industry that keeps alive in the manly American bosom the reputed flame of gallantry toward the wife. Among us, it is the dawdlers, the money-spenders, who treat their own wives with off-hand civility, and bestow their graces upon the wives of other men. As our countryman ascends the ladder of gold into the high places of idle society, he generally models himself after the Englishman of a corresponding class who gives the whole world its cue in the enjoyment to be had from things material. And, as everybody knows, *that* shining exemplar does not concern himself overmuch with attendance upon one woman's whims! It is a maxim with him that, to kill time in yachting, shooting, hunting or travelling, as it should be done, a man must dispense with the impedimenta of inconvenient service to the fair. What a Fortunatus is he who can still the wifely implorings for companionship, by showering greenbacks upon her pathway, and coaxing her to find amusement that will dry her eyes of the tears shed upon his departure! But, naturally, the husband thus consoling, and the wife thus consoled, are not drawn more closely together by the transaction. Very soon, she has learned to entertain herself elsewhere than in his company, and the couple, who are nothing if not modish, are sundered. From such alliances are apt to come the stories of conjugal disaster that fill our newspapers and tingle in the ears of sober folk throughout the country. The curious part of it is that these people, like most American-born men and women, have a natural bent toward the placid pleasures of home and fireside, oftener than impulse of a baser sort that drives them to moral wreck.

In the same class of society—fortunately too small as yet to

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

be fairly cited as illustrating American characteristics, but which it is nevertheless the ardent ambition of many Americans to enter—we see other varieties of husbands who do not sustain our national boast of superiority in that particular article of social traffic, among them him who carries to pathetic lengths his willingness to give precedence to his wife. Insignificant of appearance, homely of origin, in manner ill at ease, without real zest for the pursuits of the life into which his pretty, ambitious wife has succeeded in convoying him, he is yet conscious of feeble-minded pride in his social advancement, and in the motor that has furnished it. Following her step by step into the *penetralia* of smart society, he presents, to his old friends and acquaintances of less pretentious aims, a laughable and yet a pitiable spectacle. Left to himself, among men of his own tastes and habits, he might still have laid claim to some slight individuality. As it is, he is swayed with every wind of passing fancy in fashion, is solemnized by his fear of making a mistake, is accepted at last as a necessary appendage of a charming woman, but is, as far and as often as possible, ignored or snubbed by the set she has forced him to enter. This absurd type is not uncommon here, and its transplantation—still in the wake of the clever and insinuating wife—into foreign soil does not improve the conception of American conjugal life in foreign minds.

Another manifestation in our day is a husband who, viewed from afar, would be taken for a high prize in the matrimonial market—an agreeable, successful man of affairs, who, having amassed a fortune, spends it lavishly; from whose wife or children nothing is withheld that can conduce to luxurious living, or lend brilliancy to the position at which he rates himself. In public, and in the visible relations of life, he is all good humor and indulgence. Men pronounce him a prince of good fellows, women smile at his approach, his employees radiate in his service, the public charities are in steady receipt of his bounty. But between him and the wife of his youth, the bride of his early poverty, the sharer of his struggle to rise, there is now a great gulf fixed. The greed for wealth, for place and prominence, the flatteries of the outside world, have filled the best spaces in his heart; and he has long outlived a sense of dependence upon her love or companionship. Her movements, her absence from or presence in

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

his home, are indifferent to him ; and the finding by her of interests and friends other than his own is a solace for which he will pay ungrudgingly in hard cash. How this couple began life in the old-fashioned, happy, humdrum American middle-class fashion, is distinctly remembered by others ; and the pity of it is that their wreck should occur when the port of life is just in sight. A little less worldly success might have steered them in safety to the end of the matrimonial voyage. But, whatever the cause, their separation is one of many that do not appear in the divorce courts.

The type of American husband most familiar among us, however, is the man of busy energies, kindly, affectionate, proud of his family, with whom he is free handed and sympathetic in their pleasures—who might, if the stress of making a livelihood would leave him free to do so, enjoy domestic life heartily, and aid in bringing the married state to be what good old Dicky Steele described it in the *The Tattler*—"a complication of all the pleasures of life, and a retreat from its inquietudes." But, alas ! under the conditions of modern money-grubbing, what opportunity has the poor man to cultivate fireside amenities and hang garlands upon the Lares of his hearth? In New York, for instance, he hurries away from home directly after eating a hasty breakfast, to return to it late in the day, fagged from the incessant and nervous grinding of the mill down-town, and ravening for his dinner. At such a moment, all the charms and all the virtues combined in one wife, often cannot win smiles or playful speech from any husband so beset; and a wise woman effaces herself until the post-prandial hour gives her a reasonable hope of claiming his conversation. At this period of the evening, unless she is a mere monger of nursery gossip or a household drudge, her spirit, braced and expanded by the day of independence and responsibility, is eager for the fray of ideas. She longs for the interchange of sentiment on current topics, while her heart (an organ among our wives apt to be fairly well stored with conjugal affection) owns to a little joyous thrill of satisfaction in the *tête-à-tête* that has lost nothing by years of repetition. To it, even the grown children are an interruption; and she sees them go their several ways in search of more active entertainment with almost a sigh of satisfaction ! What, at this interesting juncture, is the attitude of the ideal husband?

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

What, of the real husband? These are queries to be answered by observation or by experience!

If, critically regarded, the ordinary American husband is ever discovered to fall short of the high standard of consideration for his wife attributed to him by public voice, it seems to me it is in thinking that freedom and plenty of money to spend, without giving account of it, will take the place of his personal attentions to her. He should appear more with her in public; wear less of the air of a martyr led to the stake when in attendance on her before the world; and pay more heed at home to the trifling observances of convention and dress and manner that are so provokingly important to the happiness of most women. A very small show of effort, in the matter of externals and in courtesy of daily speech, will sometimes go to the heart of a wife, when a gift of value, or a concession of points in dispute between them, will leave it cold and untouched. The American wife, accustomed as she is to free range of thought and action, to admiration of her spirited achievements, to good humored indulgence of her "fads," does not, as a rule, receive from her husband the *petits soins* M. Max O'Rell speaks about as distinguishing the manner of a French husband to his wife. Nor is she accustomed to seeing her spouse arise to open the door for her, as is the English wife. Trifles, light as air, are these no doubt; and not to be weighed in the balance against the fidelity, the generosity, the single-minded loyalty of our average American toward her he is pleased to style his better half. But one wonders, sometimes, if their absence does not account in a measure for the fact that she is so rarely a real half of her husband—if her extolled independence of attitude does not rob her of that dream of identity with him she once promised herself so fondly. For there is no appeal possible from a husband more inspiring to a wife than that for comradeship. If our women were to hear it oftener, perhaps there would be less said of the pursuit of "public works" that take the American wife over the borders of her home, outward bound.

CONSTANCE CARY HARRISON.

III.

SPEAKING historically, all evidence leads inevitably to the conclusion that the only entirely ideal husband ever known to exist was unfortunately cut off in the flower of his

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

youth, some time during the early years of the Pliocene Period. Minute fossil fragments of his bones have been discovered and are worn as relics by pious celibates; they are even said to have worked miracles, but no record exists of a second avatar of this noble being, and the experience of wives gives no reason to hope that a sinful and unworthy world can ever hope for his reappearance.

Nevertheless, with that fine disregard ever shown by the sex for scientific facts and historical evidence, every woman begins her sentimental life with expectation unabated by the experience of others. The luminous aura surrounding her lover translates him at once to a simulacrum of that long dead, knightly saint, until the fierce light which beats upon the husband dissipates the mists of early love, and brings into view the unprepossessing traits of commonplace humanity.

As is the case with all legendary persons the outlines of the character of the ideal husband are vague. The charming vision that haunts the dreams of maidenhood is compounded all of passion and purity, of beauty and vigor, chivalry and grace. A Samson among men he willingly yields into her feeble hands the locks of his power. A creature of a volcanic passion which renders him indifferent to meals and superior to sleep, he can be moved to rapture by but one single specimen of the sex, and can live for ever upon the hope or memory of her tenderness. He combines with an easy mastery of all manly arts a delightful preference for reading poetry aloud beside the domestic hearth; is superior to all vulgarly material considerations and is yet generous in the matter of diamonds, and, in a word, unites in one stalwart person all the virtues of Galahad, Launcelot, and Arthur.

The wife, perhaps—in moments of disgust with the crude masculinity of her mate—will permit herself to ponder an ideal who, while less magnificently ornamental than the gentle maiden's collection of romantic bric-a-brac—is yet, like the well recommended English butler, "thoroughly domesticated." She dreams of a person prepared to throw himself with enthusiasm into the study of croup and measles, full of burning sympathy in the matter of female domestic service, and yet so full of tenderness and tact as to be able to instantly obliterate himself at moments of domestic crises. Like the aforementioned ideal servant he is never in the way and never out of it. He is uncritical of incompetence or failure, and unexactingly fond; unabsorbed by affairs

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and yet commanding the secret of worldly success, and above all and before all he is constitutionally and hopelessly blind to the charms and virtues of any other woman than his wife.

Tastes may differ as to details, and according to temperament, nationality or social condition, but, broadly speaking, this pleasing person with his eccentric combination of qualities, figures in the abstract affections of all women.

But these, of course, are dreams—diversions of those exalted moments when the human moth allows itself with futile richness of imagination to think of the star as a possible companion. Practically what every woman hopes for and desires in her mate is that he should be a man. Not merely a person of the masculine sex, nor a creature of impossible and conflicting virtues, but one in whom the elements are so blended that within the strong circle of his virility she finds space to develop the best of all her possibilities.

Her ideal husband is no Galahad, but he retains so much of the tradition of knightliness as to keep a deep reverence for womanhood, which no bad women he may have known have been able to destroy; for this reverence of her sex she feels is her strongest incentive to right living.

Again, her ideal husband is distinctly a jealous husband, not, of course, to the point of being a vain, uneasy fool, but sufficiently so to prove to his wife that he values her—as much as his money, we will say, which he would surely not leave lying on the roadside to be snatched at by every passer by, and which he will freely incur inconvenience or even danger to defend. True, the law does not encourage this point of view. It permits him to kill the midnight burglar robbing him of his property, but denies him the same privilege in the case of the thief breaking into his home to steal his happiness. Despite the incongruities of the law the man whom the woman dreams of is red-blooded enough to be a physical terror to the sneaking invader of households. Indifference as to her fidelity argues it so valueless that she can not feel she defrauds him in not preserving it.

Her ideal husband regards her neither as mistress, chum, nor servant. Her motherhood raises her in his eyes above all three. She is something different from himself, the embodiment of his finer sentiments, his emotional life, and as such to be guarded

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

from the ruder side of existence, with something of the tender indulgent care given to a child with somewhat of the reverent consideration accorded by the laity to the priesthood. Nevertheless this nice person is not uxorious. While he assumes all the rougher share of life he is extremely exacting of her within her sphere, and demands the very best exertion of her powers. He is not content to be bundled into a hotel because she is too lazy or helpless to deal with domestic difficulties. He will not put up with cold and niggardly affection, with a neglected mind or person. All the treasures of heart and brain he demands in return for her exemption from the coarser cares of life. He even exacts that she shall be a good citizen as well as a good woman, and have public as well as private virtues. There is a theory that the patient, unexacting financial agent who is supposed to typify the genus husband in America—who like Charity suffereth long and is kind, thinketh no evil, and giveth all his goods—is woman's ideal of a mate, but this is a slander. The dull submission of the overladen ass is not the quality which ordinarily excites feminine respect. That brilliant, greedy figure, hung with jewels, who stands aloft in the social car laying the goad upon the bowed shoulders of the humble, overworked married slave who draws her chariot, is purely a figment, evolved out of the note books of shallow foreigners rushing express through the country to make a volume of travels. In reality the American husband is the most exacting of his kind. He demands gaiety, physical and mental charm, a high cultivation of all her powers and an infinity of carefully performed duties from his wife. If the American woman is brilliant and ornamental, it is because the American husband will put up with nothing less. In older civilizations woman finds in married life all the conditions prepared for her; rules made which she has only to obey, a careful code of precedents which she has only to follow. Here a woman may be within a period of seven days transported from a country boarding school to the most conspicuous position in the land, and without previous training be called upon to receive ambassadors and preside at state dinners. The husband who elevates his wife from the wash-tub in a mining camp to the palace of a millionaire, expects her to create out of the chaos of her previous experiences an ordered social world between the morning and the evening of her first day of wealth—and she does it and likes it,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and loudly proclaims that this exacting creature is the most delightful example of husband known.

Curiously enough the real person is as unlike as possible to the generally-accepted picture of the typical American husband, with his narrow, sordid, bank-clerk soul, his neglected mind, and his cynical estimate of woman as a fantastic child with an insane lust for luxury. Perhaps the typical husbands of other nations have been as much belied, and the Frenchman is not the sensualist who thrusts the woman's pretty babies from her arms into alien hands in order that her attentions may not for a moment be distracted from himself, nor her labors diverted from his business. Perhaps the German wife is not really an unpaid, contemptuously-treated upper servant, nor the English woman the victim of a selfish, domineering master. At all events but few women find all the unpleasing characteristics of the type combined in their individual specimens of the national husband.

In a recent number of this REVIEW a most interesting "Study in Wives," from the point of view of men of four different nationalities, showed—allowing for the variation of national temperament—a strong unanimity as to the character of the ideal wife. The writer of the last paper, while making a touchingly beautiful tribute to one of these noble souls—whom one was allowed to infer was his own mother—cannot refrain from a fling at the "New Woman." No discussion of any phase of the relations of the sexes is now complete without allusion to that female spectre from whose antics modern man is continually rushing weeping into the arms of the reading public to claim its sympathy and protection. It is evident that the ideal husband is not the mate for her. . . . "I cannot conceive what kind of a wife she would make, because I cannot conceive of the kind of man who would marry her."

Poor new woman! Let it be admitted that she is not a pleasing object—fails of being an attractive woman, and does not succeed in becoming an admirable man—is neither fish, flesh nor good red herring; but the ideal husband can lay his hand upon his heart and truthfully maintain that he is not responsible for her existence; he had nothing to do with her paternity. Her father is quite a different sort of being; he wanders to and fro in the land bemoaning the decadence of the old-fashioned woman, and bewailing the loss of his ancient prestige in feminine eyes.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

We heard no complaints from him some generation or more ago, when he first began to shift the burden of life upon the shoulders of his women. He thought there was something very noble in their desire for independence, their wish to relieve him of responsibility. Alas! after a decade or two, these women who had accepted men's duties began to demand a share of his privileges as well, and suddenly all those bright angelic traits assumed the outlines of a hybrid monster, and he raised a loud alarm, which only increases in hysterical intensity as her demands grow more comprehensive.

The ideal husband has no part in this disturbance. His wife has no desire to become liberated, nor to develop her individuality, beyond the limits of his life. Did any one ever see an honored priestess wish to leave her shrine to become a washerwoman? The wife of the good man finds no restriction of her liberty in marriage, no lack of freedom to do all the good work of any kind for which she has capacity. It is the selfish, inferior man who falls below the ideal who is responsible for the unpleasant developments in modern woman. She finds a strong, if unexpressed, sentiment in the family now that the girls upon reaching maturity must follow the boys into the world and assume their own support. The brothers decline to be hampered in the struggle for life by their sisters, and even a large moiety of the modern husbands are active in their encouragement of their wive's efforts to help gain the daily bread. No wonder that the woman finding herself forced to work insists upon having room to do it in.

The ancient patriarchal system may have been tyrannical in some of its features, but at least the males, under the system, were men and protected and provided for their women, who freely gave them submission and affection in return. In India reformers find the gravest opposition from the very women whose condition they are anxious to ameliorate. They fear to see the overthrow of a system which provides—even under tyrannous conditions—a home and a protector for every one of their sex.

Far above and removed from all this *tu quoque* of the sexes, this clamor of conflicting tongues, stands the good man, who is also the ideal husband—the sweetest hope of every woman, the perfect happiness of the one who finds him.

ELIZABETH BISLAND.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

NOTES AND COMMENTS.

HOW TO AVOID WAR.

MEETINGS should be held by every Chamber of Commerce throughout the country to protest against the widespread devastation war and its rumors will entail.

Meetings should be held in every village town hall to enable the farmer to express his protest at a condition of affairs which will reduce wheat to 25 cents a bushel by the closing up of European markets, and which will raise the rate of interest on his mortgage.

Meetings should be held by every labor organization to protest against a state of affairs that will stop operations on every building now in course of construction, and which, through the general paralysis of business, will reduce to beggary thousands of innocent work-people.

But still more should meetings be held by every church throughout the land to protest against the infamy of war between the two great English-speaking peoples of the world.

Urgency is required, because we may be led into a position from which it will be difficult to withdraw.

A BUSINESS MAN.

CANADA AS A HOSTAGE.

ANYBODY who has long listened attentively to the screaming of our great American Press Eagle will have heard its voice on Venezuela without detecting one note anticipatory of war with Great Britain. Clearer than any other is the familiar comfortable tone of assurance that the mother country will yield pretty much anything rather than come to fisticuffs with the grown child. It is easy, also, to catch the note of presumed triumph; the accents of the gamester who holds a sure thing and believes his opponent knows it. Indeed there is, sometimes, candid and exultant statements of the reasons why a third-term Possibility may safely paint the Monroe doctrine wildly red and flaunt it in challenge of Bull.

"Great Britain dare not oppose us," we are told. "She dare not, though her naval strength would enable her to work her will in Venezuela; she dare not, though European nations would approve her stand; she dare not, because she fears a war which would inevitably end in our screaming over annexed Canada."

Some of the more grey and bald-headed among our press eagles may think this a short-sighted view of what would result from the imagined conflict. General Sherman did indeed remark that Canada is within our lines, and Mr. Goldwin Smith has certified that Canada is England's

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

hostage to the United States. But what if Canada, on the outbreak of war, should be found placidly within our lines and yet not a hostage? What if the Dominion should declare her independence as soon as war became imminent?

That the Canadian people might decently take that course rather than risk invasion because of a dispute about Venezuela may be asserted reasonably. That they would take it, if moved by consideration for Great Britain's interests, seems plain; for thus they would relieve the old country from defending, and bar the United States from attacking, the Dominion. Then the British Navy and the New Navy might try conclusions.

It is a fine question whether Mr. Cleveland's cruisers and privateers, by levying on Queen Victoria's ocean traffic, could make more than her ironclads might by requisitioning the great American cities of two oceans. Possibly the more grey and bald-headed eagles aforementioned may conceive of Mr. Rudyard Kipling viewing that fine question with unholy glee, or a council of British admirals regarding it with tender recollections of Blucher's "*Was für plunder!*"

EDWARD W. THOMSON.

WHAT IS MALARIA?

THE word malaria was originally used to designate "bad air" or air contaminated with noxious gases, and these were supposed to be the cause of miasmatic or swamp disease. The Roman marshes, so far as we can ascertain, afforded the first cases of diseases of this type which were recorded in writing, though, of course, mankind "shivered and burned" with malarial paroxysm ages before the historical Roman plains were known. About twenty years ago medical men began to realize that malarial fevers were caused by some agent other than "bad air." A poisonous something associated with noxious gases, but quite apart from them, evidently lay at the root of the manifestations which they knew as paludal or marsh disease, But even the light of science, in which they saw more clearly this additional cause, failed to make them discard the time-honored name malaria, and to-day it still stands for the class of ailments whose symptoms we know so well.

Various theories have been advanced in the past to account for the actual cause of malaria. The subtle nature of the poison has given some observers courage even to deny its existence. It was asserted by one eminent authority that the so-called malarial diseases were due solely to cold and chill after exposure to great heat; especially when the body was exhausted by toil and fatigue. There can be but little doubt that such conditions are predisposing causes of malaria—that they render the system susceptible to its poison. But this is true of any of the germ diseases and to-day we know malaria to be a germ disease.

In 1881 Alphonse Laveran, a French physician, discovered in the blood of persons suffering from malarial fevers a microscopic organism which was never found in the blood of persons in health. At first very little attention was paid to his announcement; few had ever heard of him, and the scientific world was committed to the alleged discovery of Professors Klebs and Tommasso-Crudelli of a bacillus of malaria having quite different characteristics. Other observers, after a time, confirmed Laveran's statements, but failed to do so in the case of the alleged Klebs bacillus.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Laveran's discovery has been called the plasmodium of malaria, although he himself called it *oscillaria malariæ*, because of the peculiar oscillating movements it made.

The parasites are found within the red blood corpuscles, and also free in the blood. They are classed among the protozoa, *i. e.*, they are one-celled animalculous vegetables. So constantly are these little organisms found in the blood of persons suffering from malaria that we can tell to a certainty whether a case of fever is malaria and requires a certain line of treatment, by examining under the microscope a drop of blood taken from the finger of the patient. The blood may be examined fresh, without any special preparation. The finger or the lobe of the ear is simply pricked with the point of a sharp lancet, and a drop half the size of the head of a pin is placed on a clean cover glass, such as is used for microscopic specimens. This is then put on a glass slide under a very powerful microscope, when the plasmodia can be seen in the form of minute round bodies within the red blood corpuscles and of larger spheres, often having one or a number of black specks in their center, floating with the corpuscles free in the blood.

Other forms of the plasmodium have been described. Some of them have hair-like filaments projecting from them ; others are shaped like rosettes, others again are crescent shaped.

Laveran maintains these shapes are different stages of development of the same kind of plasmodia. Other observers claim that the different shaped plasmodia cause different types of malarial fevers. For example, one kind producing ordinary ague, another pernicious malarial fever, another intermittent fever, and so on. Laveran himself admits, however, that the crescent-shaped bodies are seen oftenest in relapsing fever and in malarial anæmia.

Some of the views of the Italian school—which holds in the main to Laveran's plasmodia, but believes that each type of malaria has a plasmodium of a different kind—are borne out by the peculiar characteristics of the disease. Thus they claim that the plasmodia develop inside of the red corpuscle and each phase of their development marks a phase in the development of the disease. First a small plasmodium appears within the corpuscle, and this gradually increases in size eating the corpuscle up, so to speak, as it does so. Then the little specks, already referred to, appear, these being broken up, destroyed pieces of the red corpuscles. The plasmodium then begins to segment or divide into several new plasmodia.

When the segmentation is completed the blood corpuscle, which now contains four to six new plasmodia, begins to lose its characteristics until it entirely disappears, destroyed by the parasites. The latter then float free in the blood serum until each finds lodgment in a new corpuscle when it recommences a new cycle of existence. The time occupied by the various phases of development of the plasmodia determines the periods of the disease, *i. e.*, whether the fever be every fourth day, every third day or every other day and so on.

The plasmodia do not have things quite their own way, however, for the phagocytes of the blood are their deadly enemies. These are the white blood corpuscles, little round white globes endowed with a peculiar motion like that of a certain jelly-fish. The phagocytes have been likened to soldiers, for they bear the same relation to the economy of the blood as do soldiers to the economy of the nation. They have also been called "The policemen of the blood." They destroy harmful invaders. The plasmodia are eaten up, so to

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

speak, by the phagocytes. The phagocytes can be seen with whole plasmodia in them, or with fragments, or with only the granules or little black pieces of red blood corpuscles, to which reference has been made.

Quinine is especially deadly to the development and life of the plasmodia. Thus we can account rationally and theoretically for its beneficial effects in the treatment of malarial diseases. The use of the drug—for which we are indebted to the instinct, perhaps, of the Peruvian Indian, or at least to pure empiricism—is placed upon a true scientific basis.

Without doubt, the malarial plasmodium is developed outside of the body in decaying organic matter, particularly in swampy districts. Nevertheless, this has not been proven, for it has never been seen or cultivated like other disease germs outside of the body. Many scientists believe it to be a water germ, and to be principally transferred to man through the medium of drinking water. Some have advanced the theory that mosquitoes carry it and inoculate man when they insert their probosces in the flesh! The facts, however, I think, bear out the conclusion that it may be taken in with the air breathed, that it is air-born and from the earth where it finds its origin.

We might sum up our knowledge of malaria about as follows:

1st. Malaria is caused by a germ or parasite.

2d. These parasites destroy the red blood corpuscles.

3d. They complete in the blood a cycle of existence which corresponds to the stages of the disease.

4th. The plasmodia not only attack the red blood corpuscles but also effect certain changes in other tissues of the body, particularly the spleen, kidneys and bone marrow.

In addition to these conclusions it seems probable that different kinds of malarial diseases are caused by different varieties of plasmodia.

CYRUS EDSON.

THE FUNCTION OF PUBLIC EDUCATION.

THE large and growing interest in the subject of public education finds voice, not only in private discussion, but in the number of articles that are constantly being written upon the subject. In following the latter, one cannot help noticing how diverse, and often confusing, are the ideas advanced. The writers start from differing premises, but generally come to some vague conclusions about the necessity of more and better educational facilities. In all this, the distinction between education in general, and state education in particular, appears to be lost sight of completely. School boards are criticised and belabored, the most elaborate and expensive systems are strenuously advised, and it is assumed that it is the business of the state to furnish all the higher education that the rising generation may find useful. Much confusion would be avoided, and the discussions less at cross-purposes, if writers would clearly define what they mean by public education. Why does the state educate? and how far should it educate? If any substantial unanimity upon these questions could be arrived at, the whole problem would be simplified, and the direction of advance be clear and assured.

Before attempting to answer the above query, it may be well to bring out the negative side of the question. The state does not educate for charity.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The most ardent advocates of higher education by the state do not put the ground of their request upon charity. Neither does the state undertake education to give culture or polish to a number of its citizens; if so, it becomes a form of socialism, and, to be consistent, other good things should likewise be furnished. Where shall we draw the line? It would be much better for the state to furnish hygienic houses and apartments to the people at a moderate rental, than to offer the advantages of a higher education. The former is actually done by most of the large cities of Great Britain. In any scheme of advancing socialism, higher education should be the last thing attempted. As at present constituted, the state does not educate with socialistic ideas and motives. Why, then, *does* the state educate? To preserve itself. How far should the state educate? Simply to the point necessary for its preservation. *The underlying principle of state education is state preservation.* The moment we leave the principle of necessity, we are on uncertain and debatable ground. It does not require much discussion to determine the simple and fundamental branches of education that the state should teach in order to protect itself against gross ignorance and inefficiency. Reading, writing, figuring, and a knowledge of the country's history should be most thoroughly taught. To this could be combined an education of the hand as well as of the head, the first rudiments of training having been started in the kindergarten. All appliances for teaching these fundamentals of education should be most modern and complete, and carried on under the best hygienic surroundings. The absence of any attempt to cope with the higher and more ornamental branches would leave sufficient time and money to lay a proper ground-work in every child's case, even the most backward and unpromising one. The importance of primary education is now universally recognized, as it is, directly or indirectly, made compulsory in all civilized countries. When, however, the state attempts to carry education along higher lines, the temptation to neglect the humble primary branches in the interest of the upper and more showy grades, becomes apparently impossible to resist. This tendency is nowhere more glaringly exhibited than in New York, where public education is poor and incomplete in the primary and fundamental parts, but elaborate in the higher and non-essential grades. We have two well-equipped colleges with many courses, and numerous grammar schools on the one hand; on the other, primary schools without proper appliances for either health or education, overcrowded and unable to accommodate many of the children who apply for even this poor modicum of instruction. The great majority of the children of New York who are educated at the city's expense never get beyond the primary grades, as they have to begin to earn their living at from twelve to fourteen years of age. A conservative estimate places the number of children who cannot be accommodated for want of room at the public schools, at fifty thousand, the great majority of whom are candidates for the primary grades. Poor as it is, the fundamentals of education are thus denied to a large number of children who need such training. Many of these children are of foreign parentage, and are thus in danger of growing up in ignorance of our laws and institutions, unless the state educates them, as a measure for its own protection.

The last census shows that illiteracy is twice as great among the foreign born population than among the natives, excluding the colored population of the South. When the question is looked at from the standpoint of state preservation, as well as from justice and right, the folly of this dispropor-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

tion of expenditure upon upper grades of schooling in proportion to the number of children benefited, becomes apparent. At bottom, it is a financial question as to where money that has been given for a certain purpose can be, and should be, best spent. We are not here discussing the desirability of universal higher education although much can be said on either side of this question. Greece, with a population of barely two million, and seven gymnasia or colleges, with one university, might be looked at from all sides in studying such a problem. Experience has shown that the state can devote about so much money to the various functions it has to perform. Public education can claim no exemption from this rule. When more is attempted than is justifiable by the resources at hand, either some part of the course must suffer, or enormous demands be made at the hands of the taxpayers. The New York Board of Education recently submitted to the Board of Estimate and Apportionment the sum of $5,648,079 as the lowest sum that is needed to conduct the expenses of our public schools during the coming year. Last summer the Board of Education took steps toward the erection of seven new school houses, but when these are completed, many more will still be necessary to accommodate the large number of little children for whom no provision is made. Many of the older buildings are in a deplorable hygienic condition.

At a public meeting last winter, Commissioner Wehrum, who had made an inspection and study of the subject, declared that seven million dollars would be required to put the public schools of New York into proper sanitary condition. The writer, who has made a careful sanitary inspection of many of the school-houses, believes this to be a conservative estimate. The new school-houses are rendered expensive to construct from the wide range of instruction that is required in them. Outside the great expense of properly housing the children, the cost of instruction averages $31 per head, with from 175,000 to 180,000 enrolled. If all these children could take advantage of the whole course, it might be a question whether this large expense were not justified. Only a small proportion, however, advance to the upper grades, which form the costly part of the system, while for half that sum per head, thorough primary education could be furnished to all. Complete elementary instruction of the best quality, freely guaranteed to every child, is all that the city or state should be required to furnish. When it attempts to go beyond this, it involves enormous expense to give advantages to the few who can benefit by them, and the beginners are usually the first to suffer from this draining of the funds in wrong directions. New York forms an object lesson of the evils here portrayed, with its badly appointed, overcrowded primary schools that cannot accommodate the throngs of children seeking admission, in spite of the enormous sums that are devoted to public education.

In the newer communities of the West, the expenses of public instruction are largely borne by the returns from land grants, and accordingly the ornamental and higher grades of education receive much attention. But these communities usually have more crying needs in other directions for the expenditure of public moneys. Last summer, the writer visited a Western city of about seventy thousand inhabitants, that had expended three hundred thousand dollars in the construction of a public high school, where everything was taught, from music to zoölogy. The rooms and appliances were modern and almost palatial, but the superintendent told me that only about five per cent. of the public school children could afford the time to

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

take the course. The town drains into a lake, and takes its water supply from the same source, the two pipes being not far separate. As a result, infectious diseases are common, especially typhoid fever. This town can afford to give a few of its children ornamental education at public expense, but it cannot find funds for proper drainage and water supply.

One of the first functions of the state, more important even than education, should be to ensure healthful living conditions for the people. At any rate, if any funds are left after primary education has been attained, they can be best employed in stamping out preventable diseases, such as diphtheria and typhoid fever. The whole question will be simplified if the proposition be accepted as a sound one, that the state should educate only to the point necessary to preserve itself. This point can be reached by thorough and universal primary education. No aid is afforded this problem by attempting to give a few the advantages of a higher education. According to the census of 1860, 72 per cent. of the population of Spain could neither read nor write, but it boasted in the possession of ten universities!

HENRY DWIGHT CHAPIN.

AN EXPENSIVE DELUSION.

DURING the war of extermination against the Unitarians of southern Spain, a number of Moorish mothers flung their children into the sea, rather than surrender them into the hands of their persecutors. It may be doubted if since that time the history of the civilized world has recorded a more portentous expedient of protest than the result of the recent elections, when sixty-eight thousand of our fellow-citizens took refuge in a political tiger-den, to effect their deliverance from the yoke of Sabbatarian despotism.

"*Del Rey y de la Inquisicion calla la boca*" was a Spanish proverb—"Seal your lips to criticisms of the King and the Inquisition"; but the extremes of intolerance provoked an outburst of public indignation which finally led to their abatement, and it is a significant fact that almost for the first time a representative of the American press has ventured to name the delusion which for many long years has darkened our social atmosphere like an all-pervading mist, robbing the sky of its sunlight and the woods and fields of their birdsong. "But for the exasperating effect of uncalled-for, unjust, harsh, and oppressive execution of the Sunday laws," says a leading metropolitan newspaper, "a union of all the anti-Tammany forces would have been as easy and triumphant as it was last year"

The charge of obstinate folly, it is true, has been retorted upon the leaders of the opposition. They have been accused of reckless selfishness; of a "blind antagonism to the moral sentiment of their neighbors," just as the apologists of the Inquisition attributed the fate of those Moorish children to the headstrong fanaticism of their parents, though the alleged fanatics would have been glad to purchase partial recognition of their human rights by connivance at the most extravagant sectarian practices of their persecutors.

The advocates of personal liberty have no quarrel with religion, nor with personal bigotry in its most pronounced Sabbatarian forms, but only with *aggressive asceticism*, with the belief in the possibility of bettering the world by the suppression of popular pastimes, and the duty of continuing the attempt in spite of invariable disappointments. That belief—the key-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

stone dogma of anti-naturalism—asserted itself in the rancorous fury against the "worldliness" of physical culture; against the pagan worship of joy; against the Easter-fires, Maypoles and round dances of our mediæval ancestors; against the entertainments of the modern theatre, and finally in the enforcement of a monkish quietism on the day when a large plurality of our workingmen get their only chance for outdoor sports.

That form of anti-naturalism has never failed to defeat the moral purpose of its apostles, and in its obtrusion upon the recreation-needing millions of our industrial republic is really a more terrible curse than the despotism of the Roman emperors during the most depraved period of paganism. The tyranny of the Cæsars was a lightning hurling its bolts at prominent trees; the intolerance of our Sabbatarian bigots is a forest fire, deadening the life-germs of whole mountain ranges.

The present political consequences of Sabbatarianism—though they have forfeited the fruits of a great reform movement—may yet be retrieved, but there is no doubt that its effects have deeply, and perhaps permanently, impaired both the moral and physical health of our industrial classes. The alternation of night and day should reveal the truth that nature is averse to permanent gloom. Sunlight is a primary condition of all nobler life, and only ignorance or basest selfishness can doom a child of earth to the misery of toil uncheered by the sunlight of recreation. For even enlightened selfishness would recognize the advantages of the pagan plan. The passions of personal ambition burned then as fiercely as now, but the Roman world-conquerors thought it wiser, as well as nobler, to share their spoils with the soldiers who had fought their battles, with the workmen who had reared their palaces and planted their gardens. The very slaves had their *saturnalia;* at the end of each working day menials and artisans forgot their toil amidst the wonders of the amphitheatre. The promise of the evening cheered the labors of the hardest task; minds frequently unbent by the relaxation of diverting pastimes were less apt to break under the strain of toil, less liable to yield to the temptation of despondency, envy, and despair.

"Without the stimulus of exhilarating sports," says an educational reformer, "perfect bodily health is as impossible as moral and mental vigor. And as sure as a succession of uniform crops will exhaust the best soil, the daily repetition of a monotonous occupation will wear out the best man. The hopelessness of unrewarded drudgery drains the springs of health, even at an age when they can draw upon the largest store of inner resources. Nine-tenths of our factory children are literally starving for lack of recreation; not the means of life, but its object, civilization has deprived them of. They feel a want which bread can only aggravate, for only hunger helps them to forget the misery of *ennui*. Their pallor is the sallow hue of a cellar-plant; they would be healthier if they were happier. I would undertake to cure a sickly child with fun and rye bread sooner than with tid-bits and tedium."

And even considering the question from the most cynical standpoint of practical expedience, one may often come to doubt the wisdom of what a dissenter calls "the dollar and dogma league" of our peculiar civilization. Obscurantism has incidentally developed a keen faculty for seeing in the dark, and for the sake of witnessing the surprising effects of the truth that can be stranger than fiction I have sometimes wished our commercial Peck-sniffs could overhear the remarks of their supposed dupes.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"I would not blame those fellows for screwing down our wages to the bottom notch," said the recipient of an invitation to a Sabbath School for adults, a workingman who had recently been fined for trying his holiday luck at a trout stream, "I would not grudge them the right of saddling me with extra work whenever they have me at their mercy, or of refusing me the slightest assistance if I should fall sick; but I do blame them for trying to knock me out of a picnic that would not cost them a copper of their own money—just for the sake of *rubbing it into me*, that their youngsters shall have all the fun going and mine none at all. It's more than mean; it's foolish. After knowing their way of taking every unfair advantage one may still excuse it on business-rule principles, but then seeing these same skinflints teaching a Sunday class and whining till the the tears run down their jackboots, in their anxiety to make a poor fellow renounce his own syrup-pot, as well as theirs, and wait for the Sweet By and By. . . . They may consider that the cheapest way to hush up matters, but unless they have got rid of their common sense, as well as of their humanity, they ought to know that it is pretty late in the day for such tricks, and that a man with half an eye open can see through their little game."

"Curtain! Curtain!" to stop such glimpses behind the scenes.

The contemplation of possible reforms affords, indeed, more cheerful views of the subject. On the simple principle of permitting all privileges that do not interfere with the privileges of others, we could legalize Sunday field sports on playgrounds sufficiently remote from places of worship to obviate disturbance; and within a quarter of a century the offer of prizes for proficiency in such exercises as running, leaping, and wrestling would effect the physical regeneration of our republic. Millions of boy-topers would be turned into young athletes; millions of spectators would be lured from the gloom of slum-dens to the sunny fields. Our workingmen would begin to find life worth living; the best of all natural stimulants would enable them to dispense with the tonics of the dram-shop. In the interest of law and order, large cities would find it a good plan to arrange free Sunday picnic excursions—and fishing excursions, too, for that matter—free hillward trains and musical excursion boats, with non-alcoholic restaurants. It would prevent vice on Basedow's plan of baffling the wiles of the tempter by making healthy pastimes more attractive.

For, in spite of the experience of centuries, it cannot be too often repeated that the practice of trampling the flowers of earth has never prevented the development of rank weeds. The record-clerk of a little court, house town in western Indiana could furnish a document that ought to be displayed in large type at the headquarters of every "Law and Order" league. Reform purposes were the first plea of a captured White Capper, but when confronted with the proofs of outrageous brutalities he began to recognize the futility of further fiction and confessed that "game and fish were all gone, and with no prospect of a circus this year or any other fun going, the boys concluded to get up a little moonlight sport of their own."

For similar reasons, the students of our hidebound theological seminaries indulge in frolics that can hardly be dignified with the name of secular sports, and in hundreds of cases the police of our blue-law-ridden country-towns have discovered schoolboy associations of burglars and pickpockets.

"All work and no play" makes Jack a mean, as well as a dull, boy. Compare the bright and cheerful youngsters of the Alleghany hunting hamlets with the Sunday-spying cads of a Western bigot borough, or the followers

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of Robin Hood with the partisans of Robert Montgomery: not the bitter pessimism of our working classes only, but their anarchistic and nihilistic tendencies, have a good deal to do with their resentment of the more and more intolerable despotism of the meddlers with their natural right to celebrate their holidays after the fashion of Rheinsberg rather than of La Trappe.

Sabbatarianism has closed the gates of our universal republic against some of the most desirable colonists, frugal, law-abiding, and industrious, like the natives of southern France, whose intelligence would promote every art of peace, and whose valor in times of national peril would make them march to death as to a festival, but who refuse to celebrate their festivals like funerals. It has failed to keep out immigrants whose law-defying habits make them indifferent to the evils of legislative absurdities.

But are such drawbacks not compensated by the abatement of the liquor vice? asks my temperance friend. That pretext, however, dates only from the time when Asceticism began to experience an inconvenience in stalking about undisguised, as in the penances, the vigils and fasts of the Middle Ages. The fanatics of anti-naturalism cared so little for the physical welfare of their converts that in the mediæval monasteries self-torture and alcoholic excesses went for centuries hand in hand, and for the purposes of sanitary reform the enforcement of the Sunday excise laws is, indeed, the purest mockery. What would we think of the intelligence of a legislator who should prohibit the reading of obscene literature on the Sabbath-day, but freely permit its sale on all other days of the week? Sabbatarian blue laws prevent picnics, excursions, athletic field-sports, and even musical and art entertainments; they not only fail, however, to prevent drunkenness, but notoriously drive thousands to drown their *ennui* in the Lethe of alcoholism.

As usual the suppression of healthy pastimes has begot a passion for vicious pastimes, and the joy-starved children of our factory towns form only a small percentage of the millions whom Sabbatarian bigotry has made duller, meaner, sicklier, and poorer.

In explanation of an otherwise inconceivable inhumanity, it must be admitted that the unworldly motive of Sabbatarianism probably commends it to the favor of certain moralists, and it may promote the revision of their ethical standards to ponder the fact that the alleged virtue is uglier and more expensive than any vice.

F. L. OSWALD.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED